HQMC
16 Aug 04

E R R A T U M

to MCO 3501.12

MARINE CORPS COMBAT READINESS EVALUATION SYSTEM
(SHORT TITLE: MCCRES); VOLUME XI, COMBAT SUPPORT ELEMENTS

1. For administrative purposes, the Publications Control Number (PCN) has been reidentified. Change the PCN "10203354000" to read: "10203361900".

DEPARTMENT OF THE NAVY
HEADQUARTERS UNITED STATES MARINE CORPS
WASHINGTON, DC 20380-0001

MCO 3501.12
TDC-20
9 Mar 1988

MARINE CORPS ORDER 3501.12 W/CH 1-2

From: Commandant of the Marine Corps
To: Distribution List

Subj: Marine Corps Combat Readiness Evaluation System (Short Title: (MCCRES); Volume XI, Combat Support Elements

Ref: (a) MCO 3501.1A

Encl: (1) Volume XI - Mission Performance Standards (MPS's) for Combat Support Elements

1. Purpose. To promulgate Volume XI of MCCRES for use in the training and evaluation of combat support elements per reference (a).

2. Cancellation. Section 2E, Reconnaissance Element of MCO 3501.3A, and Section 7C, Radio Battalion Direct Support Unit of MCO 3501.8.

3. Action. Commanders will:

a. Use the MPS's contained in the enclosure as guidelines for establishing training goals, training programs for combat support elements, and for formal evaluations as directed by command elements.

b. When appropriate, use the MPS's for informal evaluations, and/or inventory examinations to determine a unit's current training status and areas for future progressive training programs.

c. Make every effort to conduct evaluations when the unit is participating in their appropriate role as part of a Marine Air Ground Task Force (MAGTF). This method will strengthen integration efforts and give a more complete evaluation of realistic combat readiness.

3. Summary of Revision. This Order contains a substantial number of new additions and should be completely reviewed. Recipients of this Order will ensure ready availability of Volume XI of MCCRES to all Marines who are responsible for planning and conducting combat training or participating in evaluations.

4. Reserve Applicability. This Order is applicable to the Marine Corps Reserve.

F. L. SISLEY
Deputy Chief of Staff
for Training

DISTRIBUTION: L68 plus 7000057 (20) plus 4159 (1)

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PCN 10203361900

DEPARTMENT OF THE NAVY
HEADQUARTERS UNITED STATES MARINE CORPS
WASHINGTON, D.C. 20380-0001

MCO 3501.12 Ch 1
TE31
12 May 1989

MARINE CORPS ORDER 3501.12 Ch 1

From: Commandant of the Marine Corps
To: Distribution List

Subj: Marine Corps Combat Readiness Evaluation System (Short Title: MCCRES); Volume XI, Combat Support Elements

Encl: (1) New page inserts to MCO 3501.12

1. Purpose. To transmit new page inserts to the basic Order.

2. Action

a. Remove pages XI-A-i and XI-A-ii and replace with corresponding pages contained in the enclosure.

b. Insert new Section XI-E, Mission Performance Standards (MPS), Remotely Piloted Vehicle (RPV) Companies (cover page, pages XI-E-i to XI-E-iv, and XI-E-1 to XI-E-34).

W. R. ETNYRE
By direction

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WASHINGTON, D.C. 20380-0001

MCO 3501.12 Ch 2
TE 31G
9 Jul 92

MARINE CORPS ORDER 3501.12 Ch 2

From: Commandant of the Marine Corps
To: Distribution List

Subj: MARINE CORPS COMBAT READINESS EVALUATION SYSTEM
(SHORT TITLE: MCCRES, VOLUME 11, COMBAT SUPPORT ELEMENTS)

Encl: (1) New page inserts to MCO 3501.12

1. Purpose. To transmit new page inserts to the basic Order.

2. Action. Insert new Section XI-F, Mission Performance Standards (MPS), Communication Units (pages XI-i, XI-F-i and XI-F-ii, cover page, pages XI-F-1 to XI-F-36).

C. W. FULFORD, JR.
By direction

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SECTION 11A

COMBAT ENGINEER UNITS

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Ch 1

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COMBAT ENGINEER UNITS

INTRODUCTION

This introduction reviews the considerations made during the development of combat engineer mission performance standards (MPS's), the goals of MCCRES, and provides information that will assist in the successful implementation of MCCRES MPS's. MPS's contained in the section apply to all combat engineer units and establish the minimum acceptable requirements to properly accomplish their mission in the areas of:

General Engineering
Mobility
Countermobility
Survivability

The MPS's tasks, and standards were derived from Marine Corps doctrine, tactics and techniques, other service methodology, and field recommendations from Marine Corps commands. MCCRES and its MPS's were developed with the goal of enhancing the combat readiness of Marine Corps units. The system provides the commander with a tool to formally or informally evaluate the combat readiness and training of his unit, to identify strengths and weaknesses, and to enable him to prioritize the unit's training requirements.

It is recommended that commanders use MCCRES MPS's to establish training objectives and take every opportunity to informally evaluate their units. It is understood that the number of MCCRES tasks that can be evaluated will be influenced by available training areas, environmental restrictions, units to be supported, external support, and time available. Those standards not evaluated should be included in an exercise scenario at some point during the training cycle, even if they must be broken into partial evaluations. This approach will ensure that all MPS's are evaluated and, accordingly, that proficiency is demonstrated in all areas.

MCCRES tasks for the combat engineer units presupposes that personnel and logistics support are sufficient to achieve minimum acceptable standards; but, it is acknowledged that sufficient people, supplies and equipment are not always available. Portions of the standards may be utilized as they fit a particular scenario or operation without prejudice to the evaluated unit for not attempting all the standards. When such external factors contribute to limiting the unit's combat readiness, it should be noted in the "COMMENTS" column of the evaluation sheet and recorded in the overall report.

In many exercises, demolition and other combat engineer tasks are simulated to fulfill overall MAGTF exercise objectives. Tasks considered paramount to the combat engineers' basic mission should be satisfactorily demonstrated by live fire whenever possible.

Finally, these MPS's apply to a combat engineer unit in support of a MAGTF, and it is preferred that evaluations be conducted in that manner. Therein, the role of the combat engineer unit commander to dynamically recommend the employment of combat engineers, and for the unit itself to exhibit their efficiency in support of tactical operations will be the basis for a successful demonstration of their combat readiness.

11A.1 GENERAL COMBAT ENGINEERING

TASK: 11A.1.1 CONDUCT COMBAT ENGINEER PLANNING

CONDITIONS:

The combat engineer unit is in support of a maneuver unit conducting tactical operations. During the conduct of the operation, combat engineer tasks involving mobility, countermobility, survivability, and general engineering are required.

STANDARDS: 11A.1.1.1 - 11A.1.1.19
EVAL: Y; N; NE

.1 ____ Reports to the supported unit commander for planning. (KI)

.2 ____ Conducts an analysis of the supported unit's mission. (KI)

.3 ____ Anticipates potential combat engineer tasks to be assigned based on the mission, and begins preliminary planning.

.4 ____ Determines intelligence and information requirements based on the area of operations, enemy terrain, and weather.

.5 ____ Receives commander's planning guidance.

.6 ____ Conducts a detailed examination of the proposed courses of action.

.7 ____ Requests aerial photography and other special topographic products concerning the area of operations.

.8 ____ Conducts a map reconnaissance and identifies potential terrain modification tasks; i.e., mobility, countermobility, survivability, and general engineering.

.9 ____ Develops a combat engineer estimate of supportability. (KI)

.10 ____ Submits recommendations on employment of combat engineers based on METT-T.

.11 ____ Receives engineering tasking, based on commander's guidance and established priorities.

.12 ____ Issues a warning order to subordinates and begins detailed planning.

.13 ____ Formulates a movement plan, makes any required changes in the task organization, begins immediate preparation, and schedules rehearsals based on the warning order and tentative plan.

.14 ____ Develops a detailed combat engineer plan based on procedures contained in the combat engineer unit SOP after receipt of the commander's decision.

.15 ____ Prepares an engineer annex for inclusion in the supported unit's operations order/plan.

.16 ____ Conducts a ground reconnaissance of the various sites based on the tasking, if the tactical situation permits.

.17 ____ Completes the plan, and issues an order to his subordinates using sketches, sand tables, etc.

.18 ____ Supervises and refines the plan based on new intelligence, changes in the situation, additional guidance, etc.

.19 ____ Conducts the requisite staff coordination to ensure the assigned engineer tasks are fully integrated.

EVALUATOR INSTRUCTIONS:

Before a task is formally received the combat engineer officer will initiate planning based on liaison, mission analysis, etc. This planning, to include a combat engineer estimate of supportability, can be written or verbal, depending on the situation; however, the sequence of planning should be the same. The determinant in the degree of detail of the planning process is the time available based on the tactical situation. Given adequate time, the supported unit goes through a deliberate planning process which allows each attachment to fully integrate into this planning process. The planning process is as detailed as the tactical situation allows.

KEY INDICATORS:

REPORTING FOR PLANNING AND OPERATIONS

The combat engineer unit commander reports to the supported unit commander in response to orders given by his parent command. At the time he reports for planning, he is normally functioning under the control of his parent command for all matters except those concerned with the upcoming operation. When he reports for operations, the combat engineer unit must have the requisite personnel, equipment, and skills required to complete the mission.

MISSION ANALYSIS

As a portion of his overall responsibilities, the combat engineer unit commander must analyze the mission of the supported unit in detail. From this analysis he will determine aspects of the terrain that might require engineer effort, the ability of the enemy to restrict the employment of combat engineers, the ability of the engineer unit to facilitate satisfactory accomplishment of the assigned mission, and the need for any specialized types of engineer equipment.

ESTIMATE OF SUPPORTABILITY

When the supported unit staff has developed various courses of action for consideration, the combat engineer unit commander develops his estimate of the ability of his unit to support the courses. He must consider as a minimum the following aspects:

a. A prioritized engineer plan that supports the commander's scheme of maneuver.

b. Combat engineer support required by the supported unit as well as other combat support units.

c. Enemy obstacle employment capabilities as well as an initial estimate of what friendly combat engineer support can be provided in terms of mine counter measures, such as meters of minefields, antitank ditches, vehicle positions, and strongpoints which can be constructed. This estimate is based on standard planning figures and available materials, both onhand and obtainable from local sources.

d. Quantities of construction and/or demolition material required.

e. Manpower and equipment augmentation from the supported unit to accomplish any of the tasks.

f. State of proficiency of the engineers.

g. Time constraints imposed by the situation.

TASK: 11A.1.2 CONDUCT STAFF INTERACTION

CONDITIONS:

The supported unit has been assigned tactical operations, supported by combat engineers. The engineer unit commander is the combat engineer unit leader as well

as the primary advisor to the supported unit commander on engineer matters. The engineers are involved in completing assigned tasks.

STANDARDS: 11A.1.2.1 - 11A.1.2.9
EVAL: Y; N; NE

.1 ____ Provides advice to the supported unit commander throughout the conduct of tactical combat operations.

.2 ____ Maintains an engineer situation overlay. (KI)

.3 ____ Supervises ongoing combat engineer tasks.

.4 ____ Reports the status of combat engineer tasks to the commander, G/S-3, G/S-4, or others as required.

.5 ____ Coordinates with the FSC for fire support coordination, as required. (KI)

.6 ____ Reports all changes in the overall combat engineer capability to the commander, G/S-3, or others as required.

.7 ____ Submits appropriate reports to the supported and parent unit.

.8 ____ Coordinates with the G/S-2 to obtain available intelligence, topographic and weather information on the area of operations.

.9 ____ Recommends to the commander the task organization, changes in future employment of combat engineers, priority of efforts, etc.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

ENGINEER SITUATION OVERLAY

The engineer unit commander does not keep a situation map of the type found in the COC, but rather an overlay depicting for the commander the location and status of engineer work projects, and the location of enemy installations such as minefields and fortifications that may require engineer efforts. Any recommended barrier plans to be prepared for defensive actions are also displayed.

COORDINATION WITH FSC

The combat engineer unit commander coordinates with the FSC to ensure that in the defense, obstacles are reflected in the fire support plan, and in the attack, supporting fires are planned for anticipated or known breaching operations. The combat engineer covers in detail the commander's concept for the use of FASCAM. Artillery delivered scatterable mines are ammunition; however, as an obstacle, they must be integrated in the obstacle plan, and minefield reading forms filled out.

TASK: 11A.1.3 ERECT EXPEDIENT LIFTING DEVICES

CONDITIONS:

The combat engineer unit is in support of a maneuver unit. The terrain prevents vehicular movement up or down a cliff. The supported unit requires the lifting of crew served weapons, ammunition, and supplies. Field expedient lifting devices are required.

STANDARDS: 11A.1.3.1 - 11A.1.3.6
EVAL: Y; N; NE

.1 ____ Identifies the types, amount and weight of equipment, ammunition, supplies, etc., which require movement.

.2 ____ Conducts a ground reconnaissance to locate the site, and coordinates with the supported unit.

.3 ____ Calculates the amount of materials and equipment required, and prepares a sketch of the design.

.4 ____ Constructs shears:

a. Lashes shear legs together with 8 turns and 2 frapping turns.

b. Determines shear leg spacing, digs holes to anchor legs and secures lateral movement.

c. Erects shears using tackle and hand "walk-up" method.

.5 ____ Constructs a gin pole:

a. Attaches lashing to pole with 8 turns, two of the center turns engage block and tackle.

b. Lays out gut ropes and attaches to pole with clove hitches. Ropes are four times the length of the pole.

c. Reeves hoisting tackle system.

d. Strings out guylines to their anchors and erects gin pole using the walk-up method.

.6 ____ Lifts the loads successfully without failure.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.1.4 DESIGN AND INSTALL AN EXPEDIENT DRAINAGE SYSTEM

CONDITIONS:

The combat engineer unit is tasked to construct a drainage system to support road construction/maintenance operations. Limited engineer equipment is available. Expedient material such as sandbags, logs, and planks have been located.

STANDARDS: 11A.1.4.1 - 11A.1.4.7
EVAL: Y; N; NE

.1 ____ Conducts a ground reconnaissance and identifies areas requiring drainage.

.2 ____ Estimates surface water runoff based on:

a. Hasty Method. Computes the cross section area of an existing ditch or gully using the high water mark. Doubles this area to get the required cross section of the drainage structure.

b. Local Information. Consults local weather reports and inhabitantsto determine rainfall, effects of rainfall, and bases estimate on reported flow, topography, and existing channels.

.3 ____ Digs ditches to meet the following criteria:

a. Cross section area of the ditch is adequate for the projected flow rate.

b. Minimum depth is generally 1 1/2 feet.

c. Gradient of ditch should be between 0.2 and 0.5 percent.

d. If gradient is over 2.0 percent, uses erosion control devices, such as sod, RIPRAP, desk dams, or terraces.

e. Uses existing drainage patterns wherever possible.

.4 ____ Calculates the size and type of culvert to be constructed, if necessary.

.5 ____ Establishes drainage across roads using:

a. Open top culverts constructed of expedient materials.

b. Closed culverts.

.6 ____ Completes the required drainage within the time allotted.

.7 ____ Identifies any continued maintenance requirements.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.1.5 CONSTRUCT CULVERTS

CONDITIONS:

The combat engineer unit is tasked to maintain lateral routes along the FEBA to allow for the movement of supplies and equipment. The task requires the construction of culverts. Engineer equipment is available. Culvert materials are limited to field expedients. The location and required size has been determined.

STANDARDS: 11A.1.5.1 - 11A.1.5.16
EVAL: Y; N; NE

.1 ____ Reviews work estimates prepared from the reconnaissance, identifies available materials, requests personnel and equipment augmentation, and verifies work estimates.

.2 ____ Task organizes and inspects available personnel and equipment for serviceability.

.3 ____ Coordinates required transportation and other logistics matters.

.4 ____ Orients culvert to take advantage of natural drainage unless such placement causes excessive length, directional change, or a sharp channel bend near the entrance.

.5 ____ Places the culvert at right angles to the road when natural drainage is not present.

.6 ____ Installs ditch relief culverts at a 60 degree angle to the ditch centerline.

.7 ____ Constructs the culvert to have a slope of between 2 to 4 percent, with 0.5 percent as the absolute allowable minimum.

.8 ____ Uses riprap to protect the outlet channel from water flow greater than 8 feet per second.

.9 ____ Places an inlet at or below the ditch bottoms.

.10 ____ Extends the culvert outlet at least 2 feet beyond the fill unless an outlet headwall is used.

.11 ____ Constructs a culvert using field expedient materials; e.g., 55 gallon drums, timber logs.

.12 ____ Backfills culvert with a minimum cover of 12 inches or one half culvert diameter, whichever is greater.

.13 ____ Constructs a headwall using rubble, sandbags, logs, etc.

.14 ____ Headwall does not extend above shoulder of road.

.15 ____ Constructs wingwalls as required to channelize water.

.16 ____ Completes the task within the time specified in the operations order.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.1.6 MOUT PLANNING

CONDITIONS:

The supported unit has been assigned the mission to attack and secure a security corridor to separate loyal and rebel forces in a country friendly to the United States. The combat engineers have been tasked to support the operation by performing those MOUT combat engineer tasks which support the forward movement of assault forces.

STANDARDS: 11A.1.6.1 - 11A.1.6.13
EVAL: Y; N; NE

.1 ____ Acknowledges receipt of the tasks and receives commander's guidance.

.2 ____ Coordinates with other staff officers to gather required information and intelligence, detailed guidance in regards to time, responsibilities at planned breaches, etc.

.3 ____ Issues a warning order to subordinates and begins preparation.

.4 ____ Conducts a urban terrain analysis to include surface, above surface, and subsurface features.

.5 ____ Coordinates with the supported unit and other element commanders for a ground reconnaissance of the urban terrain, if the situation permits.

.6 ____ Completes plan ensuring integration with the supported unit to include security planning.

.7 ____ Arranges with the G/S-4 to prepackage standard loads of class IV materials such as palletizing pickets, barbed wire, and mines necessary to lay a 100 meter minefield.

.8 ____ Coordinates with the supported unit to arrange for the forward movement of class IV and V materials.

.9 ____ Organizes engineers and equipment to facilitate the clearing of mines and boobytraps, removal of other obstacles, and the opening of routes through urban areas.

.10 ____ Issues the order and rehearses procedures contained in the combat engineer unit SOP for advanced demolition techniques, actions, and responsibilities for breaching obstacles, etc.

.11 ____ Initiates required reports regarding minefield installation and ensures the necessary authority is received from the supported commander.

.12 ____ Uses sketches, sandtables, etc., to depict the location of obstacles, assets available, the responsibilities of the combat engineers at planned breaches, construction of obstacles, etc.

.13 ____ Refines the combat engineer plan throughout the mission and supervises preparations.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.1.7 CONDUCT MOUT

CONDITIONS:

The supported unit is ordered to attack and secure a security corridor to separate loyal and rebel forces in a country friendly to the United States. Initial planning of those MOUT combat engineer tasks which will support the forward movement of assault forces has been completed.

STANDARDS: 11A.1.7.1 - 11A.1.7.5
EVAL: Y; N; NE

.1 ____ Conducts a face-to-face coordination with the supported unit to arrange for linking-up assigned combat engineers, review of responsibilities at planned breaches, security provisions, location of assets such as bulldozers, unit's call sign and frequencies, specific information on anticipated obstacles, etc.

.2 ____ Conducts rehearsals with the supported unit of movement techniques, actions at minefields, obstacles, etc.

.3 ____ Moves to positions through or behind secured buildings, through subterranean routes, or on rooftops not covered by enemy fire or observation.

.4 ____ Ensures an overwatch element secures the flanks and rear, and provides fire support.

.5 ____ Conducts covert, hasty, or deliberate breaches depending on the mission, time available, and the enemy defenses covering the obstacles.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.1.8 PLAN AND CONSTRUCT A MOBILE ELECTRIC POWER SYSTEM (MEPS)

CONDITIONS:

A supported unit has assumed defensive positions. The commander has issued planning guidance concerning the defensive plan, the construction of bunkers, protective shelters, and facilities. The combat engineers are tasked with planning, constructing, and operating a MEPS. The unit commander estimates the position will be occupied for at least 24 hours.

STANDARDS: 11A.1.8.1 - 11A.1.8.20
EVAL: Y; N; NE

.1 ____ Coordinates with the command element of the supported unit and identifies those facilities requiring power and their priority of installation.

.2 ____ Uses procedures contained in the unit SOP during the planning, construction, and operation of MEPS.

.3 ____ Prepares a sketch, wiring diagram, or other visual aid to assist in preparing the electrical distribution plan.

.4 ____ Issues a warning order to subordinates to allow them time to begin movement of supplies and equipment and make preparations.

.5 ____ Determines kilowatts, or fraction thereof that each facility will use.

.6 ____ Determines proper AWG (gauge of wire) wire for the distribution system, and annotates it on the wiring diagram.

.7 ____ Computes the total kilowatts and current requirements for the entire plan.

.8 ____ Determines voltage requirements (cycle or hertz) and phase requirements for the equipment used at the various locations.

.9 ____ Determines the distance between the load and generator, and includes it on the wiring diagram.

.10 ____ Computes the voltage drop or line loss due to the resistance of the cable or wire.

.11 ____ Coordinates the development of a routing plan for wires which considers traffic routing, safety, and flexibility.

.12 ____ Determines the material required to construct and operate the MEPS.

.13 ____ Locates circuit breakers/switching devices to allow circuit isolation for repairs or additions.

.14 ____ Ensures the load is balanced across available phases and shows calculations.

.15 ____ Submit the electrical distribution plan for approval.

.16 ____ Installs the system according to the priorities established.

.17 ____ Ensure that where the overhead system crosses roadways, the wires are properly marked and have at least a 12 foot ground clearance.

.18 ____ Constructs a buss bar properly.

.19 ____ Connects overhead wire sections properly to:

- Buss bar, if appropriate.

- Insulator racks, if appropriate.

.20 ____ Ensures proper safety precautions are taken at all times, and the proper danger and warning signs are posted.

EVALUATOR INSTRUCTIONS:

TM 5-765, TM 5-760, FM 20-31 provide reference information.

KEY INDICATORS: None.

TASK: 11A.1.9 DETERMINE MEPS GENERATOR REQUIREMENTS

CONDITIONS:

The combat engineer unit has been tasked to plan, construct and operate a MEPS. The supported unit has assumed the defense, and the unit commander estimates the position will be occupied for at least 24 hours. The location of facilities requiring power, the priority of installation, and traffic patterns have been coordinated with the command element of the supported unit.

STANDARDS: 11A.1.9.1 - 11A.1.9.6
EVAL: Y; N; NE

.1 ____ Calculates the total load to be used throughout the entire position.

.2 ____ Determines the proper size and the number of generators required.

.3 ____ Identifies the specific generator sites.

.4 ____ Demonstrates the proper method to parallel generators.

.5 ____ Prepares an electrical power failure plan, and submits it for approval.

.6 ____ Provides a written estimate of POL requirements for the duration of the operation.

EVALUATOR INSTRUCTIONS:

TM 5-765, TM 5-760, FM 20-31 provide reference information.

KEY INDICATORS: None.

TASK: 11A.1.10 CONSTRUCT TACTICAL GENERATOR EMPLACEMENT

CONDITIONS:

The combat engineer unit has been tasked to plan, construct, and operate a MEPS. The supported unit has assumed the defense, and the unit commander estimates the position will be occupied for at least 24 hours. The location of facilities requiring power, the priority of installation, and the traffic patterns have been coordinated with the command element of the supported unit. Strick mission discipline has been imposed. Heavy support equipment is available for site preparation.

STANDARDS: 11A.1.10.1 - 11A.1.10.6
EVAL: Y; N; NE

.1 ____ Coordinates the location of the generator site(s) early in the development of the electrical distribution plan.

.2 ____ Ensures that generators are dug in or well bermed to dampen noise and protect generators.

.3 ____ Ensures each generator site has adequate space on all sides for maintenance personnel to have easy access.

.4 ____ Ensures soil under each generator site is firm, well drained, and free of flamables.

.5 ____ Utilizes camouflage nets or natural materials for concealment.

.6 ____ Locates generator(s) near the largest load or a location central to serve large loads.

EVALUATOR INSTRUCTIONS:

TM 5-765, TM 5-760, FM 20-31 provide reference information.

KEY INDICATORS: None.

TASK: 11A.1.11 PERFORM OPERATIONAL MAINTENANCE ON GENERATORS

CONDITIONS:

Different size MEP generators are used to satisfy electrical requirements. Operators perform operational checks before, during and after equipment use per appropriate technical manuals.

STANDARDS: 11A.1.11.1 - 11A.1.11.8
EVAL: Y; N; NE

.1 ____ Correct TM's are utilized.

.2 ____ Ensures preoperational checks are performed prior to starting generators.

.3 ____ Ensures generators are properly grounded using round clamps.

.4 ___ Ensures deficiences discovered during the preoperational check are corrected before starting generators.

.5 ___ Ensures deficiencies discovered during operation of the generator are noted for correction; if immediate equipment damage would result, the generator is stopped.

.6 ___ Ensures corrective action is taken on deficiencies discovered during the post operational checks.

.7 ___ Deficienices are recorded together with the corrective action on the applicable form at the earliest possible opportunity.

.8 ___ Operators correctly fills out equipment operating logs (NAVMC 10524) noting equipment hours, POL consumption, and updated PM schedules.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.1.12 CONDUCT A WATER RECONNAISSANCE

CONDITIONS:

The combat engineer unit is supporting tactical operations. The supported unit has tasked the engineers to locate and provide potable water.

STANDARDS: 11A.1.12.1 - 11A.1.12.19
EVAL: Y; N; NE

.1 ___ Calculates the daily water requirements for the unit.

.2 ___ Requests available information from the G/S-2 on the area of operations and weather.

.3 ___ Conducts a map reconnaissance to locate potential water sources.

.4 ___ Arranges for a physical reconnaissance, coordinates security, fire support, communications, transportation, etc., and makes necessary preparations, i.e., gathers maps, presets radio frequencies, inspects equipment, etc.

.5 ___ Evaluates available water sources to determine salt/brackish (High total dissolved solids (tds)) content.

.6 ___ Collects three sanitary samples of source water.

.7 ___ Forwards one sample to Preventive Medicine for culture test.

.8 ___ Accurately reads color comparator to determine PH.

.9 ___ Accurately reads color comparator to determine chlorine content.

.10 ___ Maintains log of source PH and chlorine residual content.

.11 ___ Determines if the source can provide sufficient volume of water.

a. Stream - depth x width x flow

b. Pond - length x width x depth

.12 ___ Determines requirements for site preparation, security, camouflaging, etc.

.13 ___ Selects suitable, level site for purification equipment.

.14 ___ Prepares sketch showing traffic pattern of proposed water point.

.15 ___ Performs chlorine demand test onsite.

.16 ____ Rejects source if chlorine or petroleum is present in water. (ROWPU only).

.17 ____ Identifies possible sources of contamination.

.18 ____ Performs five jar coagulation test.

.19 ____ Coordinates potable water transportation requirements.

EVALUATOR INSTRUCTIONS:

FM 10-52, TM 08580A-10/1 provide reference information.

KEY INDICATORS: None.

TASK: 11A.1.13 DETERMINE EQUIPMENT REQUIREMENTS

CONDITIONS:

The combat engineer unit is supporting tactical operations. The supported unit has tasked the engineers to locate and provide potable water.

STANDARDS: 11A.1.13.1 - 11A.1.13.6
EVAL: Y; N; NE

.1 ____ Calculates water storage requirements based on the daily consumption requirements.

.2 ____ Determines number of water production units and storage tanks required based upon daily consumption and number of operating sites.

.3 ____ Considers back-up production and/or purification units.

.4 ____ Determines number of bath and laundry units required based upon population to be supported.

.5 ____ Determines number of distribution sets required.

.6 ____ Determines generator requirements.

EVALUATOR INSTRUCTIONS:

FM 10-52, TM 08580A-10/1 provide reference information. If source contains petroleum or chlorine, the ROWPU cannot be used.

KEY INDICATORS: None.

TASK: 11A.1.14 SET UP AND OPERATE WATER PURIFICATION UNITS

CONDITIONS:

Given a potable site, purification equipment, and appropriate chemicals the utilities section must produce 3000 gallons of potable water within 6 hours of arrival at site.

STANDARDS: 11A.1.14.1 - 11A.1.14.18
EVAL: Y; N; NE

If ROWPU is used:

.1 ____ Makes maximum use of natural cover and concealment or camouflages site.

.2 ____ Ensures all water lines are buried, or distinctive linear patterns are concealed.

.3 ____ Selects suitable, level ground for unit.

.4 ____ Positions unit close enough to water source.

.5 ____ Correctly installs all hoses and pumps.

.6 ____ Correctly mixes all required chemicals.

.7 ____ Checks total dissolved solids (tds) of all water.

.8 ____ Checks for petroleum products in water.

.9 ____ Performs preoperational checks.

.10 ____ Ensures residual chlorine content does not exceed allowable standards.

If U22 is used:

.11 ____ Selects suitable, level ground for unit.

.12 ____ Correctly installs all hoses and pumps.

.13 ____ Flocks tanks using appropriate formula.

.14 ____ Places appropriate quantity of diatomaceous earth in the DE hopper.

.15 ____ Places appropriate quantity of chlorine in chlorine hopper and sets hypochlorinator to ensure 5 ppm chlorine in product water.

.16 ____ Performs preoperational checks.

.17 ____ Performs during operation checks each hour of operation.

.18 ____ Performs daily checks on source PH and maintains a log of findings.

EVALUATOR INSTRUCTIONS:

FM 10-52, TM 08580A-10/1 provide reference information.

KEY INDICATORS: None.

TASK 11A.1.15 DETERMINE CHEMICAL REQUIREMENTS

CONDITIONS:

Given a water sample, water test kit, TM 700, and a water source the unit is required to determine chemical requirements.

STANDARDS: 11A.1.15.1 - 11A.1.15.5
EVAL: Y; N; NE

.1 ____ Determines type of equipment required.

.2 ____ Calculates correct batch quantities of chemicals.

.3 ____ For ROWPU, uses the correct formula to determine correct amounts of citric acid, polymer, chlorine, and sodium hexametaphosphate.

.4 ____ If the U22446 is employed, uses the correct formula to determine amounts of alum, soda ash, activated carbon, and diatomaceous earth.

.5 ____ Maintains 5 ppm chlorine residual.

EVALUATOR INSTRUCTIONS:

FM 10-52 and TM 08580A-10/1 provide reference information.

KEY INDICATORS: None.

TASK: 11A.1.16 UTILIZE CORRECT SAFETY MEASURES

CONDITIONS:

The utilities section is operating water and shower points for the ground combat element.

STANDARDS: 11A.1.16.1 - 11A.1.16.8
EVAL: Y; N; NE;

.1 ____ Ensures hearing protection is worn around all generators, heavy equipment, and the U22446.

.2 ____ Ensures that the ROWPU and all generators are properly grounded.

.3 ____ Uses a flexible spout on 5 gallon can when refueling equipment.

.4 ____ Does not over fill fuel tanks or create spillage.

.5 ____ Ensures ROWPU filters are backwashed, as required, to maintain quality of product water and a safe operating pressure.

.6 ____ Ensures that no electrical contacts are left exposed.

.7 ____ Conducts a complete check on all equipment before use, looking for loose connections, missing hand guards, etc.

.8 ____ Uses torque wrench when replacing end caps on RO vessels and torques to correct inch pounds utilizing TM 08580A-10/1.

EVALUATOR© INSTRUCTIONS:

FM 10-52 and TM 08580A-10/1 provide reference information.

KEY INDICATORS: None.

TASK: 11A.1.17 PREVENTION OF FREEZING

CONDITIONS:

The supported unit is operating in subzero weather and water is being drawn from a hole punched through the surface of a frozen lake.

STANDARDS: 11A.1.15.1 - 11A.15.10
EVAL: Y; N; NE

.1 ____ Disconnects all water and chemical hoses and drains them after use.

.2 ____ Drains all pumps thoroughly after use.

.3 ____ Drains unit of all water after use.

.4 ____ Places cover on unit if possible.

.5 ____ Operates unit heated tents/shelters.

If U22 is used:

.6 ____ Disconnects and drains all hoses after use.

.7 ____ Drains all pumps after use.

.8 ____ Drains both hypochlorinator and DE slurry reservoirs after use.

.9 ____ Places cover on unit if possible.

.13 ____ Circulates water in storage tanks or bladders using 55 gpm pumps, or stores water in heated tents.

EVALUATOR INSTRUCTIONS:

FM 10-52 and TM 08580A-10/1 provide reference information.

KEY INDICATORS: None.

11A.2 MOBILITY

TASK: 11A.2.1 CONDUCT A DELIBERATE BREACH

CONDITIONS:

Combat engineers are in support of a unit attempting to infiltrate through enemy positions or into an enemy perimeter. A warning order has been issued to subordinates. The operation order directs that a deliberate breach be conducted at night or during periods of limited visibility. The enemy has constructed hasty obstacles; however, they are not dense. No use of chemical mines are indicated. The supported unit is providing security.

STANDARDS: 11A.2.1.1 - 11A.2.1.15
EVAL: Y; N; NE

.1 ____ Advises the commander in regards to the breach, recommending combat engineer tactics, techniques, procedures, and personnel and equipment required.

.2 ____ Requests the supported unit maintain surveillance of the breach site to identify any enemy activity or locate any positions that may compromise the breaching effort.

.3 ____ Determines the number of lanes required.

.4 ____ Conducts a reconnaissance of the site (map or ground depending on the situation), and determines, based on enemy tactics and the terrain the orientation of the minefield and its depth.

.5 ____ Plans, in coordination with the supported commander and his FSC, suppression and obscuring fires as well as the integration of all available supporting arms, in the event that the infiltration is discovered.

.6 ____ Task organizes required personnel per Combat Engineer Battalion SOP.

.7 ____ Completes logistics planning within the available time to include reallocating and redistributing personnel and equipment.

.8 ____ Issues the order to subordinates and conducts a briefing using a sandtable, sketch, or other visual aids.

.9 ____ Conducts day and night rehearsals of the plan with all participants, time permitting.

.10 ____ Maintains noise and light discipline throughout the breach.

.11 ____ Locates, marks, and avoids mines, wire and other obstacles.

.12 ____ Clears a path, locating and removing mines, and cutting wires, without detection.

.13 ____ Camouflages any cuts in the wire, sites of mine removal, etc., to make the area appear as if the obstacles are still intact.

.14 ____ Conducts a hasty breach if the infiltration is discovered.

.15 ____ Submits progress reports on a periodic basis to the supported unit.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.2.2 CONDUCT A HASTY BREACH

CONDITIONS:

Combat engineers are in support of a unit conducting a ground attack on enemy defenses. The attack has been successful and the commander desires to maintain the momentum. Enemy is still in place, however, they are weak. No use of chemical mines are indicated. Little time is available for reconnaissance, planning and/or preparation. It is the intent of the supported unit commander to overpower the defenses with suppressive and obscuring fires, and assault elements before the enemy can regroup and reinforce. The supported unit will provide security.

STANDARDS: 11A.2.2.1 - 11A.2.2.15
EVAL: Y; N; NE

.1 ____ Advises the commander in regards to the breach, recommending tactics, techniques, procedures, and personnel and equipment required.

.2 ____ Coordinates with the command element of the supported unit to ensure combat engineers are well integrated into the plan.

.3 ____ Determines the number of lanes required.

.4 ____ Coordinates the integration of supporting arms with the supported commander and his FSC to include the use of direct and suppressive fires, smoke and other obscurants.

.5 ____ Task organizes required personnel per CEB SOP.

.6 ____ Completes logistics planning within the available time to include reallocating and redistributing personnel, supplies, and equipment.

.7 ____ Issues the order to subordinates and conducts a briefing using a sandtable, sketch, or other visual aids.

.8 ____ Conducts a limited rehearsal, time permitting.

.9 ____ Maintains communications and reports progress to command element upon reaching designated control points.

.10 ____ Employs line charges, FAE's, bangalore torpedoes, and/or other breaching devices to breach the obstacle to include the use of captured vehicles, bulldozers, etc.

.11 ____ Cuts wire, locates and detonates mines, and reduces other obstacles in order to clear a path through the obstacles expeditiously.

.12 ____ Maintains close control over the movement of engineers during breaching operations, demonstrating tactically sound procedures.

.13 ____ Marks cleared lanes for friendly movement.

.14 ____ Casualties are cared for while the assault momentum is maintained.

.15 ____ Reports completion of the mission to the tactical commander.

EVALUATOR INSTRUCTIONS:

During the breach, casualties may be assessed. Moulage kits, if available, are used to simulate wounds.

KEY INDICATORS: None.

TASK: 11A.2.3 CLEAR A VEHICLE LANE THROUGH A MINEFIELD

CONDITIONS:

The combat engineer unit has conducted an initial breach of a minefield. The breach must be widened to allow passage of friendly troops and vehicles. The supported unit commander has ordered the engineer unit to work through the night in order to allow for the resupply of the unit prior to the launch of a first light attack. Security is provided by the supported unit.

STANDARDS: 11A.2.3.1 - 11A.2.3.7
EVAL: Y; N; NE

.1 ____ Completes the plan for enlarging the lane; 1 meter for a foot lane, 8 meters for a one way vehicle traffic, 16 meters for two way vehicle traffic.

.2 ____ Coordinates security and the plan for supporting fires with the supported unit.

.3 ____ Allocates night vision devices.

.4 ____ Widens the lane to the required size, before commencement of the dawn attack, by one of the following methods:

a. Explosive breaching using a line charge or the bangalore torpedo.

b. Manual breaching.

.5 ____ Selects a method for "proofing" the lane if time/tactical situation permits.

.6 ____ Marks the entrance and exit points, and the lane through the minefield.

.7 ____ Records the widening of the lanes and submits reports to the supported unit.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.2.4 CLEAR A PATH THROUGH A WIRE OBSTACLE

CONDITIONS:

The combat engineer unit has been ordered to clear several foot paths through a barbed wire obstacle to allow for the passage of assault troops. The obstacle is covered by fire and speed is essential. Bangalore torpedoes, and/or other field expedient explosives devices are available. Intelligence reports indicate mines have been used in conjunction with the wire obstacles. No chemical mines are reported. The operation order gives the location of breach, depth of the obstacle, and time of completion. The supported unit is providing security.

STANDARDS: 11A.2.4.1 - 11A.2.4.12
EVAL: Y; N; NE

.1 ____ Acknowledges receipt of the mission and coordinates with the supported unit to ensure infantry support, fire support, and fire support coordination procedures are planned.

.2 ____ Conducts a visual or physical reconnaissance to locate the lanes to be breached.

.3 ____ Fabricates a dummy section for the bangalore torpedo and connects the nose sleeve.

.4 ____ Fabricates field expedient explosive devices.

.5 ____ Completes the plan for movement to the breaching site(s), and rehearses emplacement and signals, if time permits.

.6 ____ Makes a coordinated movement to the breaching site(s) while ensuring all available cover and concealment is utilized, and that available fire support is employed to include smoke.

.7 ____ Fastens each section of the bangalore torpedo securely using a connecting sleeve.

.8 ____ Ensures the threaded cap well is left covered and the bangalore torpedo is not primed until emplaced.

.9 ____ Places the bangalore torpedo or the expedient device through the wire obstacle using a picket etc., for stability.

.10 ____ Primes the bangalore torpedo either by means of priming adapter and a military electric/nonelectric blasting cap with time fuze, or by use of 8 or 15 second delay detonators.

.11 ____ Adheres to safety procedures.

.12 ____ Accomplishes the task within the time specified in the operations order.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.2.5 CONDUCT DELIBERATE ROUTE MINE SWEEPING OPERATIONS

CONDITIONS:

The combat engineer unit is tasked to conduct a route minesweeping operation. The supported unit will provide security for the minesweep.

STANDARDS: 11A.2.5.1 - 11A.2.5.11
EVAL: Y; N; NE

.1 ____ Acknowledges receipt of the mission and coordinates with the supported unit to ensure security, fire support, and fire support coordination procedures are planned.

.2 ____ Task organizes for the minesweep and prepares for the operation.

.3 ____ Inspects and conducts operational checks of the equipment.

.4 ____ Conducts the minesweep per the combat engineer unit SOP.

.5 ____ Conducts an electronic and visual sweep of the entire road including shoulders.

.6 ____ Employs visual detection search techniques looking for slight depressions in the road surface, artificial ruts, and changes in surface texture.

.7 ____ Relieves mine detector operators every 15 to 20 minutes.

.8 ____ Locates and marks enemy mines.

.9 ____ Detonates discovered mines or notifies higher headquarters requesting explosive ordnance disposal (EOD) support for hand removal.

.10 ____ Calculates the time and materials required to repair the road damage caused by the detonation of any mines.

.25 ____ Prepares a report (DA Form 1711-R) which contains the requisite information using standardized formats, military map symbols, hasty route reconnaissance symbols, and work estimates on reverse side.

.26 ____ Completes the mission within the time allotted.

.27 ____ Submits the written report in a timely manner.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

OVERLAY

The overlay contains the following markings:

- Two grid references.
- Magnetic north arrow.
- Scale of map used.
- Title block.
- Route classification formula.
- Width: narrowest width of the route (in meters or feet).
- Route type: determined by worst section of route.

X all-weather (surfaced road)

Y limited all weather (gravel or unsurfaced road)

Z fair weather (rough trail)

- Military route classification: lowest one way bridge load classification.
- Obstructions: note any type including amount of reduction to traffic flow.
- Special conditions: snow blockage (T), and flooding (W) are marked if conditions are persistent, but passage is possible.

TASK: 11A.2.8 FABRICATE EXPEDIENT RAFTING DEVICES

CONDITIONS:

The supported unit is conducting offensive operations and is approaching a water obstacle that cannot be forded. The combat engineer unit has been ordered to fabricate expedient rafts. Sufficient supplies; e.g., timber, fuel barrels, rope, etc., are available. Limited time is available. The raft(s) must be capable of floating a light piece of equipment weighing a minimum of 1000 lbs. The supported unit will provide work site security.

STANDARDS: 11A.2.8.1 - 11A.2.8.10
EVAL: Y; N; NE

.1 ____ Acknowledges receipt of the task and requests commander's guidance; i.e., starting and finishing time, capability desired, blackout condition(s), noise discipline, etc.

.2 ____ Requests all available information concerning the site, and intelligence on enemy forces.

.3 ____ Arranges for a reconnaissance of the crossing area to include both the near and far banks.

.4 ____ Coordinates security and fire support with the supported unit.

.5 ____ Uses phaselines, checkpoints, and other control measures, as required, to coordinate the reconnaissance effort.

.6 ____ Identifies personnel and any special equipment required to conduct the reconnaissance.

.7 ____ Issues an order to subordinates and conducts a briefing using sandtable, sketches, or other visual aids.

.8 ____ Inspects the designated personnel to ensure all required material, weapons, and equipment are onhand and are serviceable.

.9 ____ Gathers general engineering information on the designated area; i.e., location of construction materials and natural resources.

.10 ____ Using 6-digit UTM coordinates, determines the location, quantity available, quality and accessibility of resources.

.11 ____ Confirms location of routes identified by the supported unit using standard 1:50,000 military maps.

.12 ____ Identifies percent of slope and length of grades for all grades that are 7 percent or greater.

.13 ____ Identifies sharp curves that have a radius curvature of 25 meters (82.5 feet) or less.

.14 ____ Reconnoiters all bridges in the area, providing classification data, general description, orientation, component dimensions, available bypasses, defensibility of surrounding terrain, condition, maintenance requirements, velocity and width of stream, underwater supports and abutments, obstacles protecting the supports, etc.

.15 ____ Determines the location of fords, analyzes the river bottom (i.e., firm, soft, etc.), depth, identifies entry and exit points, required development/ maintenance, available concealment, slope, velocity of stream, indications of the affects of rain on drainage, width of stream, and identifies surrounding terrain considerations.

.16 ____ Locates route constrictions such as underpasses, especially those below minimum standards, and if appropriate, the distances such restrictions extend.

.17 ____ If conducted during cold weather operations, determines the weight bearing capacity of ice, danger imposed by ice floe, traction problems, etc.

.18 ____ Identifies the locations and limiting dimensions of tunnels to include suitable bypasses.

.19 ____ Determines suitable areas for short halts and bivouacs which provide drive off facilities, adequate dispersion, cover, and concealment.

.20 ____ Identifies areas of rocks, falls, and slides which may present a traffic hazard.

.21 ____ Evaluates the soil condition along the route, and determines improvements required (work estimates).

.22 ____ Reviews available area studies to identify information not covered or outdated.

.23 ____ Prepares a simple map overlay pointing out errors, improvements to routes, and omissions on the standard tactical map sheets. (KI)

.24 ____ Debriefs personnel who conducted the reconnaissance.

.25 ____ Prepares a report (DA Form 1711-R) which contains the requisite information using standardized formats, military map symbols, hasty route reconnaissance symbols, and work estimates on reverse side.

.26 ____ Completes the mission within the time allotted.

.27 ____ Submits the written report in a timely manner.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

OVERLAY

The overlay contains the following markings:

- Two grid references.
- Magnetic north arrow.
- Scale of map used.
- Title block.
- Route classification formula.
- Width: narrowest width of the route (in meters or feet).
- Route type: determined by worst section of route.

X all-weather (surfaced road)

Y limited all weather (gravel or unsurfaced road)

Z fair weather (rough trail)

- Military route classification: lowest one way bridge load classification.
- Obstructions: note any type including amount of reduction to traffic flow.
- Special conditions: snow blockage (T), and flooding (W) are marked if conditions are persistent, but passage is possible.

TASK: 11A.2.8 FABRICATE EXPEDIENT RAFTING DEVICES

CONDITIONS:

The supported unit is conducting offensive operations and is approaching a water obstacle that cannot be forded. The combat engineer unit has been ordered to fabricate expedient rafts. Sufficient supplies; e.g., timber, fuel barrels, rope, etc., are available. Limited time is available. The raft(s) must be capable of floating a light piece of equipment weighing a minimum of 1000 lbs. The supported unit will provide work site security.

STANDARDS: 11A.2.8.1 - 11A.2.8.10
EVAL: Y; N; NE

.1 ____ Acknowledges receipt of the task and requests commander's guidance; i.e., starting and finishing time, capability desired, blackout condition(s), noise discipline, etc.

.2 ____ Requests all available information concerning the site, and intelligence on enemy forces.

.3 ____ Arranges for a reconnaissance of the crossing area to include both the near and far banks.

.4 ____ Determines what equipment/materials are available, and the amount of construction time required.

.5 ____ Prepares a sketch or plan for the raft(s).

.6 ____ Task organizes the engineers, and identifies personnel augmentation requirements from the supported unit.

.7 ____ Coordinates with the supported unit to provide security on both the near and far shore.

.8 ____ Tests the raft(s) to ensure buoyancy prior to loading equipment.

.9 ____ Conducts ferrying operations per the commander's guidance.

.10 ____ Completes the task within the allocated time.

EVALUATORS INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.2.9 PREPARE AN EXPEDIENT FORD

CONDITIONS:

The supported unit is conducting offensive operations. The unit has encountered a small stream. The stream current is less than 1.5 meters per second. Available information on the area states that the stream is not greater than .75 meters deep. The engineers have been tasked to construct an expedient ford for personnel. The supported unit will provide security.

STANDARDS: 11A.2.9.1 - 11A.2.9.18
EVAL: Y; N; NE

.1 ____ Acknowledges receipt of the order and coordinates with the supported unit to receive guidance, and arrange for a reconnaissance of the site.

.2 ____ Coordinates with the G/S-2 to gather all available information to include weather predictions and any information on the effects of rain on the stream.

.3 ____ Coordinates with the G/S-3 and FSC to arrange for security, fire support, and fire support coordination procedures.

.4 ____ Conducts a hasty reconnaissance of the crossing site.

.5 ____ Determines stream velocity.

.6 ____ Determines width of stream.

.7 ____ Determines depth of stream.

.8 ____ Determines maximum allowable slope on approaches.

.9 ____ Determines if banks require stabilization.

.10 ____ Checks with local inhabitants to verify the effects of rain on the stream, if practical.

.11 ____ Selects a crossing site(s) which offers a gentle slope, and provides good traction for foot troops.

.12 ____ Takes advantage of locally available material in order to cross the obstacle with the least possible delay.

.13 ____ Ensures the bottom of the ford is solid enough to support the weight of foot troops.

.14 ____ Selects a ford that is free of boulders and obstacles.

.15 ____ Stabilizes entry and exit points by using expedient road surfacing techniques or MOMAT.

.16 ____ Stabilizes stream bed with locally available material; e.g., gravel, rocks, or sandbags.

.17 ____ Marks entry and exit points.

.18 ____ Installs necessary safety lines for troop movement.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.2.10 PREPARE A VERTICAL TAKE OFF LANDING (VTOL) SITE

CONDITIONS:

The supported unit is conducting offensive operations. The commander has issued the order to continue the attack. The 30 combat engineers have been assigned the task of constructing a VTOL site in order to allow for a more rapid CAS response. The task must be completed within 24 hours, prior to the commencement of the attack. The AV-8's are seabased and will operate from the forward site under visual meteorological conditions (VMC). The area selected is devoid of any existing roads, parking lots, existing airfields, etc. The supported unit will provide security.

STANDARDS: 11A.2.10.1 - 11A.2.10.16
EVAL: Y; N; NE

.1 ____ Acknowledges receipt of the task and receives commander's guidance.

.2 ____ Coordinates with the G/S-2/3 and ALO concerning the intelligence, security, sortie rate, location, markings required, etc.

.3 ____ Conducts a reconnaissance of the site selected.

.4 ____ Task organizes, briefs, and inspects troops for proper supplies, equipment, and/or explosives to construct the VTOL site.

.5 ____ Prepares a 72 x 72 feet square VTOL pad, constructing a suitable surface plus a parking area for an additional aircraft.

.6 ____ Clears an additional 150 feet beyond the edges of the landing pad to provide safe approaches into the site.

.7 ____ Ensures the obstruction height at the edge of the clearing does not exceed 50 ft.

.8 ____ Survey the VTOL pad to ensure the pad does not have a slope greater than 2 percent for vertical operations, and that the shoulders of the pad do not exceed 5 percent slope.

.9 ____ Determines weight bearing ability of the soil. (KI)

.10 ____ Stabilizes the soil to support the AV-8 weight, if required.

.11 ____ Lays AM-2, or MOMAT, if available.

.12 ____ Erects a wind sock.

.13 ____ Clears the area of FOD.

.14 ____ Marks the edges of the VTOL site per NAVFAC Design Manual-21, and paints an "H" in the center of the pad.

.15 ____ Completes the task within the allotted time.

.16 ____ Reports completion of the VTOL site, and provides the unit with a sketch of the site.

EVALUATOR INSTRUCTIONS:

Criteria for the site are contained in the AV-8B Tactical Manual (NWP55-3-AV8B), Chapter 11.

KEY INDICATORS:

WEIGHT BEARING ABILITY

A minimum California Bearing Ratio (CBR) value of 8 to 10 percent at 3 inches below the surface is required for suitable surface hardness in the event operations in and out of unprepared site are required.

TASK: 11A.2.11 PREPARE A LANDING ZONE

CONDITIONS:

The supported unit tasks the engineer unit to construct a landing zone. The anticipated time of use is roughly 36 hours. The LZ must be capable of handling one U.S. Marine Corps helicopter. Land clearing assets include demolitions and/or chain saws, and hand tools (heavy equipment is optional). The LZ is required for both day and night operations. The supported unit is responsible for security, and will provide working parties to augment the engineers.

STANDARDS: 11A.2.11.1 - 11A.2.11.19
EVAL: Y; N; NE

.1 ____ Acknowledges receipt of the task and receives commander's guidance.

.2 ____ Coordinates with the G/S-2/3 and ALO concerning intelligence, location of the LZ, security, anticipated number of helicopters, tonnage, requirement for storage area for externals, troops, etc.

.3 ____ Conducts a reconnaissance of the site selected, and conducts a field identification of the soil.

.4 ____ Task organizes, briefs, and inspects troops for proper supplies, equipment, and/or explosives to construct the LZ.

.5 ____ Clears a 200 meter area as well as clearing approach and departure routes, ensuring obstacles greater than 50 meters in height are removed.

.6 ____ Determines if the surface will bear the wheel weight of the heaviest helicopter possible (CH-53E, 101 psi, 14, 544 psf).

.7 ____ Stabilizes the soil to support the helicopter weight, if required.

.8 ____ Applies a membrane surface to control excessive dust or blowing snow using field expedient methods.

.9 ____ Clears the area of FOD.

.10 ____ Surveys the ground slope to ensure the slope does not exceed 10 percent.

.11 ____ Orients approach/departure routes over the lowest obstacles.

.12 ____ Orients departure routes into the prevailing wind.

.13 ____ Clearly marks obstacles which cannot be removed.

.14 ____ Uses explosives to rapidly clear trees and heavy undergrowth.

.15 ____ Uses available tools and equipment to clear small trees and brush; stumps are removed at ground level.

.16 ____ Determines storm runoff and drainage using the hasty method, and constructs surface drainage structures, if required.

.17 ____ Erects an expedient lighting system (GAIL, smudge pots, chemical lights, flashlights, vehicle lights, etc.)

.18 ____ Completes the task within the time allotted.

.19 ____ Reports completion of the LZ, and provides the unit with a sketch of the LZ.

EVALUATORS INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.2.12 CREATE A COMBAT ROAD/TRAIL

CONDITIONS:

The supported unit is conducting offensive operations which require a combat road/trail to be constructed. The combat engineer unit has been tasked to complete the project. Expedient materials are available. The supported unit will provide security.

STANDARDS: 11A.2.12.1 - 11A.2.12.9
EVAL: Y; N; NE

.1 ____ Acknowledges the receipt of the task and receives commander's guidance.

.2 ____ Coordinates with the G/S-2/3 and FSC to gather intelligence information, arrange for a reconnaissance of the area, fire support, security, etc.

.3 ____ Conducts a reconnaissance.

.4 ____ Prepares and submits a reconnaissance report, and a plan to develop the road/trail for approval.

.5 ____ Task organizes, briefs, and inspects troops for proper tools, equipment, and explosives, and requests personnel augmentation, if required.

.6 ____ Delineates the route and establishes priority of site preparation.

.7 ____ Clears route and reduces limiting grades, obstacles, etc.

.8 ____ Constructs expedient surfacing, e.g., matting, corduroy road, plank road, etc.

.9 ____ Reports work progress and completion to the supported unit.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.2.13 CREATE EXPEDIENT ROAD SURFACING

CONDITIONS:

The supported unit is conducting operations, and has established defensive positions which it intends to occupy for several days. The unimproved road leading to the positions will be heavily used by vehicles organic to the unit. A portion of the road is soft and muddy with an intermittent stream that cannot be bypassed. The engineer unit has been tasked to improve the trafficability of the road, and specifically, prepare an expedient surface for a distance not greater than 50 meters. Local materials are available. The supported unit will provide security.

STANDARDS: 11A.2.13.1 - 11A.2.13.15
EVAL: Y; N; NE

.1 ____ Acknowledges the receipt of the task and receives commander's guidance; e.g., types of vehicles, duration of the operation, black-out conditions, noise discipline, etc.

.2 ____ Requests all available information concerning the site, and intelligence on enemy forces.

.3 ____ Arranges for a reconnaissance of the area.

.4 ____ Determines equipment/material requirements to include types and amounts, availability of material, and hauling requirements.

.5 ____ Prepares a sketch or detailed plan.

.6 ____ Task organizes the engineers and identifies personnel augmentation requirements from the supported unit.

.7 ____ Coordinates with the supported unit to provide security.

.8 ____ Coordinates with proper authorities to gain approval for the removal, use, or cutting of any local materials to include method of reimbursement.

.9 ____ Applies identification markings on those trees to be cut, bushes to be removed, rocks to be removed, etc.

.10 ____ If corduroy roads are constructed, logs are layed side by side with guard logs, curbs are wired or driftpinned in place.

.11 ____ If a chespaling mat is constructed, small saplings (about 1 1/2" in diameter and 6 1/2' long) and binding material; i.e., chicken wire, mesh, heavy smooth wire, etc., are gathered.

.12 ____ Lays out wires to allow for a chespaling mat to be constructed, allowing the materials used to be wired in the center and at each end.

.13 ____ Installs chespaling mats with a minimum of a 1 foot overlap, ties the mats together, and stakes them to the ground.

.14 ____ Supervises drivers crossing the site, and arranges for maintenance of the site.

.15 ____ Completes the site within the required time.

EVALUATOR INSTRUCTIONS:

There are numerous methods of expedient road surfacing. U.S. Army TM 5-337, Chapter 19, reviews many of the techniques.

KEY INDICATORS: None.

TASK: 11A.2.14 INSTALL EXPEDIENT GAP CROSSING DEVICES

CONDITIONS:

The supported unit is conducting tactical operations and has encountered a gap obstacle that cannot be bypassed. The gap is not more than 120 feet across. The combat engineers have ropes available. The supported unit will provide site security.

STANDARDS: 11A.2.14.1 - 11A.2.14.9
EVAL: Y; N; NE

.1 ____ Acknowledges receipt of the mission and receives commander's guidance.

.2 ____ Coordinates with the G/S-3 and receives detailed guidance; e.g., direction of operation, numbers of troops to cross, time required, etc.

.3 ____ Conducts a reconnaissance of the area, and recommends the specific site.

.4 ____ Determines width of gap, location of anchor sites on both the near and far sides, and materials required.

.5 ____ Makes ready the required equipment, inspecting it for serviceability and safety.

.6 ____ Task organizes the engineer element.

.7 ____ Assembles the rope bridge. (KI)

.8 ____ Completes the bridge within the required time.

.9 ____ Disassembles the bridge on order and ensures the ropes are checked for serviceability.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

3 ROPE BRIDGE

The engineer reconnaissance team identifies adequate anchorages on both the near and far sides. Trees of 10 inches in diameter are best for the tread rope. Trees of 8 inches in diameter are best for hand ropes. The ropes are laid out. The exact length of ropes is determined by gap width, sag of rope, and length required for lashings to the anchor. The two hand ropes and the thread rope are stretched out parallel to each other, 3 feet apart, with the tread rope between the hand ropes. Suspender ropes, cut 12 feet long, are placed at 2 pace intervals.

The bridge is assembled with the suspenders attached to the tread rope. A clove hitch is used. The two ends of the suspender ropes pass under the tread rope. The hand ropes are raised elbow high and then suspenders are attached using a round turn and two half hitches. Sufficient length is left at each end to lash the bridge to the anchors.

Installing the bridge is begun after several engineers cross to the far side of the gap, paying out haul rope. The lines of the bridge are attached to the hand ropes. The bridge is pulled across the gap. The far side lines are tied to the anchors using bowline or mooring knots. If a bowline is used, an extra turn is taken around the anchor. After securing the ropes on the far side, the tread rope is pulled taut (proper sag) and secured with a butterfly knot and a slip knot. The hand ropes are pulled taut and secured with butterfly knots and slip knots.

TASK: 11A.2.15 INSTALL AN EXPEDIENT TRAMWAY SYSTEM

CONDITIONS:

The supported unit is conducting tactical operations and has encountered a gap obstacle that cannot be bypassed. The gap is not more than 120 feet across. The combat engineers have ropes, blocks, tackle, and any other required equipment on-hand. The supported unit provides site security.

STANDARDS: 11A.2.15.1 - 11A.2.15.11
EVAL: Y; N; NE

.1 ____ Acknowledges receipt of the mission and receives commander's guidance.

.2 ____ Coordinates with the G/S-3 and receives detailed guidance; e.g., duration of operation, type of equipment required to move across the gap, time required, etc.

.3 ____ Conducts a reconnaissance of the area and recommends the specific site.

.4 ____ Determines width of gap, anchor sites on near and far side, and materials required.

.5 ____ Makes ready the required equipment to be moved, inspecting it for serviceability and safety.

.6 ____ Task organizes the combat engineer unit.

.7 ____ Takes the rope and snatch block(s) to the far side and attaches the anchor to either a suitable anchor site or field expedient anchor.

.8 ____ Constructs an expedient anchor system on the near side, if required, and attaches a snatch block(s).

.9 ____ Determines approximate weight of equipment.

.10 ____ Lashes equipment and transports the load to the far side by use of a pulling rope.

.11 ____ Completes the task in a timely and safe manner.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

11A.3 COUNTERMOBILITY

TASK: 11A.3.1 PREPARE AN OBSTACLE PLAN

CONDITION:

The combat engineer unit commander has been directed to prepare an obstacle plan for future operations by the supported unit. The combat engineer officer has received the commander's guidance and has been briefed on the scheme of maneuver.

STANDARDS: 11A.3.1.1 - 11A.3.1.12
EVAL: Y; N; NE

.1 ____ Conducts a map reconnaissance based on KOCOA to identify mobility corridors, restrictive terrain, existing and reinforcing obstacles.

.2 ____ Conducts a ground reconnaissance to gather specific information, if the situation permits.

.3 ____ Creates obstacles/demolition folders.

.4 ____ Briefs the commander on the recommended obstacle plan, and gains approval.

.5 ____ Prepares the obstacle plan as an appendix to the operations plan/order.

.6 ____ Includes applicable portions of the barrier plan, pertinent portions of the denial plan, and instructions or plans from the command element in the appendix.

.7 ____ Coordinates with the supported unit G/S-3 and FSC to ensure the plan provides maximum integration of assault kill zones and does not interfere with mobility of friendly areas.

.8 ____ Identifies the specific location of the obstacles to be constructed.

.9 ____ Assigns code numbers to specific obstacles and denial targets.

.10 ____ Assigns areas of responsibility.

.11 ____ Establishes priorities for the construction and/or employment of obstacles.

.12 ____ Specifies completion time for the obstacles.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.3.2 CONDUCT RECONNAISSANCE FOR OBSTACLE CREATION

CONDITIONS:

The supported unit has begun to establish defensive positions. The combat engineer unit has been tasked to conduct a physical reconnaissance to locate sites for constructing obstacles.

STANDARDS: 11A.3.2.1 - 11A.3.2.7
EVAL: Y; N; NE

.1 ____ Conducts a physical reconnaissance to determine all possible obstacle locations and types which will delay and channelize the enemy forces.

.2 ____ Completes an Engineer Reconnaissance Report (DA Form 1211-B) for each obstacle identified.

.3 ____ Prepares demolition target ladders in accordance with pertinent STANAGS.

.4 ____ Determines avenues of approach based on terrain analysis, and enemy capabilities contained in the intelligence estimate.

.5 ____ Completes planning calculation on DA form 1711-R to determine the amounts of materials needed and manpower required to construct or emplace the proposed obstacles.

.6 ____ Considers the effect the obstacles will have on friendly mobility.

.7 ____ Ensures the proposed obstacles are integrated into the overall defensive plan.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.3.3 INSTALL A DELIBERATE PROTECTIVE MINEFIELD

CONDITIONS:

The mission to install a deliberate protective minefield to give local protection to the supported unit has been received. The location is specified in the operation order. Mines and marking material are at a preestablished ammunition supply point (ASP). Chemical mines are not authorized. The supported unit will provide security.

STANDARDS: 5D.3.3.1 - 5D.3.3.17
EVAL: Y; N; NE

.1 ____ Determines the types of mines to be used based on the threat.

.2 ____ Computes data on supplies and materials required.

.3 ____ Coordinates with the supported unit to ensure the minefield is integrated into the overall defense plan.

.4 ____ Plans lanes for the movement of friendly troops.

.5 ____ Coordinates with the G/S-4 to arrange for the movement of supplies and material, MHE, etc.

.6 ____ Reports intention to lay and initiation of laying, to the supported unit command element.

.7 ____ Coordinates area security with the supported unit.

.8 ____ Supervises construction of the minefield.

.9 ____ Emplaces antihandling devices.

.10 ____ Buries metal objects with nonmetallic mines.

.11 ____ Emplaces the minefield across the enemy avenues of approach within the range of the supported unit's weapons.

.12 ____ Marks minefields located in friendly areas.

.13 ____ Arms and camouflages all mines.

.14 ____ Records the minefield on a DA Form 1355, ensuring all information is detailed and correct.

.15 ____ Submits daily or other required progress reports.

.16 ____ Ensures a completed report is sent by the supported unit to the next higher command element.

.17 ____ Clears the area of trash and debris.

EVALUATOR INSTRUCTIONS:

When the number of practice mines required to simulate a live minefield are not available, some approximation of the mines should be attempted to simulate the volume and weight. This is necessary to gain an understanding of the logistical requirements for installing a minefield. All planning and paperwork should be completed.

KEY INDICATORS: None.

TASK: 11A.3.4 INSTALL A HASTY PROTECTIVE MINEFIELD

CONDITIONS:

The mission to install a hasty protective minefield to give local protection to the supported unit has been received. The mines and marking material are available at an ASP. Chemical mines are not authorized.

STANDARDS: 11A.3.4.1 - 11A.3.4.14
EVAL: Y; N; NE

.1 ____ Determines the types of mines to be used based on the threat.

.2 ____ Computes data on supplies and materials required.

.3 ____ Coordinates with the supported unit to ensure the minefield is integrated into the overall defense plan.

.4 ____ Marks the lanes for movement of friendly troops.

.5 ____ Coordinates with the G/S-4 to arrange movement of supplies and material, etc.

.6 ____ Reports the intention to lay and the initiation of laying to the supported unit command element.

.7 ____ Coordinates the security of the area with the supported unit.

.8 ____ Supervises the construction of the minefield.

.9 ____ Lays mines as expeditiously as possible, and does not employ antihandling devices.

. ____ Marks minefield located in friendly areas.

.11 ____ Emplaces the minefield across the enemy avenues of approach within range of the supported unit's weapons.

.12 ____ Records the minefield on a DA Form 1355, ensuring all information is detailed and correct.

.13 ____ Ensures a completed report is sent by the supported unit to the next higher command element.

.14 ____ Clears the area of trash and debris.

EVALUATOR INSTRUCTIONS:

Simulation to approximate combat loads and conditions is necessary to gain an understanding of the logistical requirements for installing a minefield. All planning, coordination, and paperwork should be completed. Depending on the scope of the minefield, the requirement to report the initiation may be eliminated.

KEY INDICATORS: None.

TASK: 11A.3.5 INSTALL A POINT MINEFIELD

CONDITIONS:

The order has been received to install a point minefield to delay and disrupt the enemy; conventional mines will be used. The location and density of the minefield is specified in the operation order. The minefield will be irregular in size and antihandling devices will be used. The mines and marking devices are at an established ASP. Chemical mines are not authorized.

STANDARDS: 11A.3.5.1 - 11A.3.5.13
EVAL: Y; N; NE

.1 ____ Determines the type mines to be used based on the threat.

.2 ____ Computes data on supplies and materials required.

.3 ____ Coordinates with the supported unit to ensure the minefield is integrated into the overall defense plan.

.4 ____ Plans lanes for the movement of friendly troops.

.5 ____ Coordinates with the G/S-4 to arrange for the movement of supplies and material, MHE, etc.

.6 ____ Reports to the supported unit command element both the intention to lay and the initiation of laying the minefield.

.7 ____ Coordinates the security of the area with the supported unit.

.8 ____ Supervises the construction of the minefield.

.9 ____ Emplaces mines and boobytraps along enemy avenues of approach.

.10 ____ Emplaces antihandling devices.

.11 ____ Arms and camouflages all mines and boobytraps.

.12 ____ Records the minefield on a DA Form 1355, ensuring all information is detailed and correct.

.13 ____ Ensures a completed report is sent by the supported unit to the next higher command element.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.3.6 CREATE A CRATER OBSTACLE WITH EXPLOSIVES

CONDITIONS:

The order has been received to crater a road in order to delay an enemy armor/mechanized column. Explosives are available. The target area is located approximately 500 meters forward of the FEBA. The supported unit is providing security.

STANDARDS: 11A.3.6.1 - 11A.3.6.9
EVAL: Y; N; NE

.1 ____ Conducts a physical or map reconnaissance to determine specific location, and receives approval of the crater plan from the supported unit.

.2 ____ Determines type of crater and calculates amount of explosives required.

.3 ____ Installs and detonates a deliberate road crater within 1 1/2 squad hours.

.4 ____ Installs and detonates a relieved face crater within 2 squad hours.

.5 ____ Selects correct size shaped charges for boreholes based on road surface to be penetrated.

.6 ____ Determines standoff by existing pavement/soil conditions.

.7 ____ Primes all charges for simultaneous detonation.

.8 ____ Detonates explosives on a roadway which creates an obstacle that is capable of impeding a tank from crossing.

.9 ____ Mines crater and adjacent area connected with natural terrain obstacles with antitank mines.

EVALUATOR INSTRUCTIONS:

All cratering charges underground are dual primed with detonation cord and branch lines. All charges are fired simultaneously except for relieved faced craters which have 1/2 to 1 1/2 seconds delay between enemy and friendly row/side. The enemy row/side should be detonated first.

KEY INDICATORS: None.

TASK: 11A.3.7 CUT STEEL WITH EXPLOSIVES

CONDITIONS:

A combat engineer unit is tasked to destroy a target which requires the cutting of steel. The required explosive materials are available.

STANDARDS: 11A.3.7.1 - 11A.3.7.6
EVAL: Y; N; NE

.1 ____ Determines the desired effect the supported unit requires; e.g., move, destroy, cut object, etc.

.2 ____ Analyzes the target to determine its construction, vulnerable points, and placement of charges, and selects type explosive and priming materials.

.3 ____ Calculates the amounts of explosive materials required.

.4 ____ Properly places and primes explosives.

.5 ____ Tests firing system.

.6 ____ Detonates and achieves the desired effects on the target.

EVALUATORS INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.3.8 DISABLE A TACTICAL BRIDGE

CONDITIONS:

Orders have been received to make preparations to disable a tactical bridge. The bridge is currently supporting friendly operations. A target reconnaissance report and the engineer reconnaissance report are available. Demolition supplies are available. The order to disable the bridge will be on order. Security is provided by the supported unit.

STANDARDS: 11A.3.8.1 - 11A.3.8.11
EVAL: Y; N; NE

.1 ____ Reviews TM 750-244-3 to determine methods of disabling the bridge.

.2 ____ Using the target reconnaissance report, calculates demolition charges required.

.3 ____ Prefabricates demolitions, ensuring all charges are dual primed.

.4 ____ Places charges on a double story medium girder bridge which will destroy all four junction panels.

.5 ____ Places charges on both bank seat beams of a single story bridge which will remove the ramps so as to destroy them.

.6 ____ Places charges on mobile assault bridge which will blow a hole in the transporter.

.7 ____ Places charges on a ribbon bridge which will blow a hole in the bridge bay.

.8 ____ Places charges on bailey bridge which collapses the bridge by cutting the span and then destroys the abutment.

.9 ____ Places charges on class 60 floating bridges which will destroy the anchor systems and pontoons.

.10 ____ Emplaces mine obstacles and mines around the bridge to delay the enemy.

.11 ____ Tests firing system.

EVALUATOR INSTRUCTIONS:

The target bridge should be rigged with simulated charges, and their placement verified.

KEY INDICATORS: None.

TASK 11A.3.9 DISABLE A PERMANENT BRIDGE WITH EXPLOSIVES

CONDITIONS:

The order to disable a permanent bridge has been received. A target file is available for the bridge. The bridge is located approximately 300 meters in front of the FEBA. The situation requires immediate movement to the bridge site to

disable the bridge; however, damage to the bridge should permit its reconstruction by friendly forces within 12 hours. Security is provided by the supported unit.

STANDARDS: 11A.3.9.1 - 11A.3.9.12
EVAL: Y; N; NE

.1 ____ Obtains the target reconnaissance report and verifies the degree of damage desired.

.2 ____ Determines the type of construction, construction materials, and size and thickness of bridge members to be cut.

.3 ____ Selects the proper type of explosive and priming material, and calculates the required amount of each.

.4 ____ Coordinates with the supported unit to arrange for security.

.5 ____ Coordinates with the G/S-4 to arrange for movement of supplies and equipment.

.6 ____ Task organizes combat engineers.

.7 ____ Assembles and prefabricates charges in the rear area to minimize the time spent on the bridge.

.8 ____ Ensures the charges are the correct size and shape.

.9 ____ Ensures the charges are placed on critical members.

.10 ____ Dual primes demolition charges and firing systems.

.11 ____ Checks electrical firing systems for breaks and continuity.

.12 ____ Achieves the desired results and reports to the supported unit.

EVALUATOR INSTRUCTIONS:

Target reconnaissance for the designated bridge is provided to the unit. The target bridge should be rigged with simulated charges, and their placement verified.

KEY INDICATORS: None.

TASK: 11A.3.10 CONSTRUCT AN ABATIS OBSTACLE

CONDITIONS:

A countermobility obstacle is required. Antipersonnel and antitank mines will be used with the abatis. Chain saws, mines, and explosives are available. Security is provided by the supported unit.

STANDARDS: 11A.3.10.1 - 11A.3.10.8
EVAL: Y; N; NE

.1 ____ Performs a physical or map reconnaissance to determine site, type, availability of trees required, etc.

.2 ____ Positions the obstacles to effectively restrict movement along likely enemy avenues of approach.

.3 ____ Constructs the obstacle to ensure the tops of the trees are toward the enemy and are entwined.

.4 ____ Ensures that trees are cut so that their stumps are 5 feet high, and the trees fall at a 45 degree angle towards the enemy, and remain attached to the stumps.

.5 ____ Integrates the abatis with other obstacles.

.6 ____ Engineers effectively demonstrate proficiency with a chain saw.

.7 ____ Using explosives, a two man team is able to cut a tree in 5 minutes.

.8 ____ Submits required reports to higher command element in a timely manner.

EVALUATOR INSTRUCTIONS:

If environmental concerns prohibit the actual cutting of trees, the evaluated unit should explain the plan using sketches and/or a walk through at the designated site.

KEY INDICATORS: None.

TASK: 11A.3.11 EMPLOY FLAME FIELD EXPEDIENTS

CONDITIONS:

The combat engineer unit has been tasked to prepare and employ flame field expedients. The supported unit has established defensive positions. These positions will be occupied for at least 48 hours.

STANDARDS: 11A.3.11.1 - 11A.3.11.9
EVAL: Y; N; NE

.1 ____ Determines site locations, numbers, and types of devices required.

.2 ____ Identifies, determines, and allocates fuel and materials required.

.3 ____ Prepares thickened fuel.

.4 ____ Mixes until the fuel has an applesauce texture (5 to 10 minutes).

.5 ____ Allows fuel to age 6 to 8 hours.

.6 ____ Emplaces the controlled exploding flame device.

a. Fills a 15 to 55 gallon nongalvinized container with thickened fuel.

b. Prepares a V-trench to provide direction for exploding fuel.

.7 ____ Prepares the exploding device for controlled detonation.

.8 ____ Prepares the exploding device with trip wires for immediate or delayed firing.

.9 ____ Briefs the supported unit commander on the location of the device, the method of detonation, trip wires employed, etc.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.3.12 CONSTRUCT A TANK DITCH

CONDITIONS:

The order has been received to construct a rectangular tank ditch in a general location to impede enemy tank movement. Earthmoving equipment is available. Time for planning and coordination is limited.

STANDARDS: 11A.3.12.1 - 11A.3.12.10
EVAL: Y; N; NE

.1 ____ Conducts a physical or map reconnaissance to determine the exact site of a rectangular tank ditch.

.2 ____ Determines equipment, explosives, materials, etc., to construct the site.

.3 ____ Calculates the amount of soil which requires removal.

.4 ____ Coordinates security with the supporting unit.

.5 ____ Using organic earthmoving equipment, constructs an effective tank ditch assuring the ditch is at least 1.5 meters deep and not less than 3.3 meters wide.

.6 ____ Ensures the spoil is not removed from the area until first building up the friendly side of the ditch.

.7 ____ Locates site for disposing of excess spoil, and routes to and from the site, or locations for "spreading out" the spoil.

.8 ____ Ensures the tank ditch is integrated into an effective barrier plan.

.9 ____ Mines the bottom and sides of the tank ditch.

.10 ____ Camouflages the ditch, time and materials permitting.

EVALUATOR INSTRUCTIONS:

If environmental considerations do not allow for construction at the desired spot, a barrier plan should be prepared and sketched. A tank ditch or portions thereof should be offset from the desired location.

KEY INDICATORS: None.

TASK: 11A.3.13 CONSTRUCT A TRIPLE STRAND CONCERTINA FENCE

CONDITIONS:

Supported unit is holding a defensive position. The combat engineer unit has been tasked to advise and assist the supported unit in constructing a wire fence. The combat engineer unit is required to construct a demonstration portion of the fence. Standard barbed wire or barbed steel tape concertina, pickets, and staples are available. Construction can take place during daylight or at night.

STANDARDS: 11A.3.13.1 - 11A.3.13.11
EVAL: Y; N; NE

.1 ____ Advises supporting unit on the correct siting of the wire obstacle.

.2 ____ Determines amounts of material required and coordinates transportation of the material.

.3 ____ Constructs triple standard concertina fence at the rate of 300 meters (985 feet) per 30 man hours.

.4 ____ Installs long pickets along front row at a five pace (3.8 meters) interval.

.5 ____ Installs long pickets along the rear row on a line 90 centimeters (3 feet) to the rear and centered between the front row of pickets.

.6 ____ Installs pickets so that the eyes of screw pickets are to the right of the picket when facing the enemy, and concave faces of U-shaped pickets are towards the enemy.

.7 ____ Constructs the fence so that each row of concertina is opened to not more than 15 meters (50 feet).

.8 ____ Joins concertina ends by placing the bottom portion of first coil over the picket, by placing top and bottom portion of the second coil over the picket, and then by placing the top portion of the first coil over the picket.

.9 ____ Integrates trip flares and/or other early warning devices into the obstacle.

.10 ____ Inspects the wire obstacle to ensure the fence is properly anchored to the ground.

.11 ____ Marks a lane for friendly troops to enter and exit the perimeter.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.3.14 CONSTRUCT A LOG CRIB OBSTACLE

CONDITIONS:

A countermobility obstacle is required. Logs and/or timbers are available. The area of the obstacle is designated, however, the exact site is to be determined.

STANDARDS: 11A.3.14.1 - 11A.3.14.5
EVAL: Y; N; NE

.1 ____ Performs a physical or map reconnaissance to determine site, type materials required, etc.

.2 ____ Produces a sketch/drawing of the obstacle.

.3 ____ Constructs a rectangular log crib across a minimum 6 meter front.

.4 ____ Strengthens the crib by filling with dirt.

.5 ____ Reports completion of the obstacle to higher or supported headquarters.

EVALUATOR INSTRUCTIONS:

All vertical logs are approximately 3 meters long, emplaced approximately 1.5 meters below the ground, and 1.8 meters apart.

KEY INDICATORS: None.

11A.4 - SURVIVABILITY

TASK: 11A.4.1 CONSTRUCT EXPEDIENT PROTECTIVE SHELTER AND TRENCHES

CONDITIONS:

The supported unit tasks the combat engineer unit to assist in establishing expedient defensive and protective positions. Positions are needed for troops, supplies, ammunition, vehicles, and POL. The positions are expected to be occupied for a minimum of 3 days. The enemy is capable of delivering direct and indirect fired rounds in size up to 120mm. Engineer equipment is available.

STANDARDS: 11A.4.1.1 - 11A.4.1.10
EVAL: Y; N; NE

.1 ____ Advises the supported unit on combat engineer tasks associated with the planning and construction of defensive positions.

.2 ____ Develops a plan for defensive work which allows for progressive development of the position. (KI)

.3 ____ Receives supported unit commander's approval of the plan.

.4 ____ Calculates estimated time, labor, equipment, and materiel requirements.

.5 ____ Develops sketches and diagrams to include construction procedures to be used.

.6 ____ Constructs emplacements which permit the effective use of organic weapons.

.7 ____ Maximizes the protection offered by the defensive positions by constructing them as small as possible and as low to the ground as possible. The positions are simple, strong, and constructed with material that is immediately available.

.8 ____ Constructs alternate positions at the same time as the primary positions.

.9 ____ Demonstrates imagination and ingenuity in recommending sites, methods of construction, best use of available materials, and siting and constructing dummy positions.

.10 ____ Completes construction of defensive/protective positions within the allotted time.

EVALUATOR INSTRUCTIONS:

The order should specify the types of materials, equipment, personnel, and the time available.

KEY INDICATORS:

PLAN DEVELOPMENT

Development of fortifications is accomplished in 3 steps:

1. Digging in quickly where speed is the principal consideration and no special tools or materials are available.

2. Improving with available material.

3. Refining using material from supply stocks and heavier engineer equipment.

TASK: 11A.4.2 CONSTRUCT PROTECTIVE SHELTERS

CONDITIONS:

The combat engineer unit has been tasked to assist in the construction of protective shelters.

STANDARDS: 11A.4.2.1 - 11A.4.2.8
EVAL: Y; N; NE

.1 ____ Prepares sketches, diagrams, and specifications required for the construction of fortified bunkers.

.2 ____ Identifies materials required.

.3 ____ Designs the shelter to protect against artillery and direct fire weapons.

.4 ____ Maximizes overhead cover.

.5 ____ Constructs the bunkers below ground level when conditions permit.

.6 ____ Ensures adequate drainage by sloping the floor of the shelter at least 1 percent toward a sump near the entrance.

.7 ____ Improvises covering for the entrances, which are hung in such a manner as to not allow light to be seen from the outside. All cracks and crevices are caulked.

.8 ____ Constructs bunker(s) according to design specifications.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.4.3 PROVIDES ENGINEER ASSISTANCE IN ESTABLISHING A STRONGPOINT

CONDITIONS:

The supported unit has tasked the combat engineers to assist in establishing a strongpoint on key terrain critical to the defense. The terrain controls an avenue of approach likely to be used by enemy mechanized forces.

STANDARDS: 11A.4.3.1 - 11A.4.3.9
EVAL: Y; N; NE

.1 ____ Conducts a physical or map reconnaissance of the site.

.2 ____ Prepares a sketch, diagram, and plan for establishing obstacles, antitank weapons positions, tank hull down positions, minefields, protective positions, and protected routes between positions.

.3 ____ Receives unit commander's approval of the plan.

.4 ____ Calculates the time, men, equipment, and materials required.

.5 ____ Assists in constructing conventional or expedient obstacles.

.6 ____ Assists in constructing antitank positions.

.7 ____ Prepares tank hull down positions.

.8 ____ Prepares dug in positions for command and control, aid stations, and critical supply storage.

.9 ____ Assists in constructing protected routes between positions.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.4.4 OPERATE IN SMOKE

CONDITIONS:

Area of operations is obscured by either deliberate or incidental smoke.

STANDARDS: 11A.4.4.1 - 11A.4.4.5
EVAL: Y; N; NE

.1 ____ Implements NBC defensive measures unless smoke is known to be harmless. MOPP 4 is implemented in doubtful circumstances.

.2 ____ Continues mission per SOP for reduced visibility operations.

.3 ____ Moves to positions from which operations can continue unimpeded by smoke.

.4 ____ Uses night vision devices, electronic detection equipment, and/or field expedient method; e.g., chemical lights, flares, engineer tape, etc., to continue operations in a smoke environment.

.5 ____ Implements unmasking procedures or reduced level of MOPP as soon as conditions are determined to be safe.

EVALUATOR INSTRUCTIONS:

The introduction of smoke generated from burning tires, smoke pots, etc., should be provided to evaluate the unit.

KEY INDICATORS: None.

11A.5 - ENGINEER COMMUNICATIONS PLANNING

TASK: 11A.5 DEVELOP CONCEPT OF COMMUNICATIONS SUPPORT

CONDITIONS:

The combat engineer unit is tasked to support combat operations. The element commander has reported for planning. The battalion communications officer is coordinating communications support for the combat engineer element. The enemy has an EW capability.

STANDARDS: 11A.5.1.1 - 11A.5.1.7
EVAL: Y; N; NE

.1 ____ Conducts mission analysis and identifies implied communications tasks.

.2 ____ Requests available communications related intelligence information on the enemy EEI's, terrain, and weather from available sources; i.e., S-2, ECAC, Marine Air Ground Task Force staff, etc.

.3 ____ Reviews task organization and command relationships.

.4 ____ Provides staff input to the supported unit's communications estimate of supportability based on the supported unit commander's proposed courses of action.

.5 ____ Refines concept of communications support based on commander's guidance.

.6 ____ Reviews communications SOP, contingency plans, lessons learned, etc.

.7 ____ Reviews overall communication readiness.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.5.2 INFORMATION EXCHANGE REQUIREMENTS

CONDITIONS:

The combat engineer unit is tasked to support combat operations. The element commander has reported for planning. The combat engineer battalion communications officer is coordinating communications support for the element.

STANDARDS: 11A.5.2.1 - 11A.5.2.4
EVAL: Y; N; NE

.1 ____ Verifies command relationships and task organization.

.2 ____ Validates internal and external needlines for current and future operations.

.3 ____ Determines estimated volume of traffic to include surge periods.

.4 ____ Identifies critical low density communications items and major end items for usage and maintenance support.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.5.3 CONDUCT COMMUNICATIONS STAFF COORDINATION

CONDITIONS:

The combat engineer unit is tasked to support combat operations. The element commander has reported for planning. The combat engineer battalion communications officer is coordinating communications support for the element.

STANDARDS: 11A.5.3.1 - 11A.5.3.2
EVAL: Y; N; NE

.1 ____ Coordinates with higher command element to receive unique requirements, gain information, provide information, make recommendations, etc.

.2 ____ Coordinates with communications personnel of adjacent command elements to discuss doctrinal and unique requirements, liaison requirements, gain information, provide information, make recommendations.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.5.4 COMMUNICATIONS SECURITY

CONDITIONS:

The combat engineer unit is tasked to support combat operations. The element commander has reported for planning. The combat engineer battalion communications officer is coordinating communications support for the element.

STANDARDS: 11A.5.4.1 - 11A.5.4.10
EVAL: Y; N; NE

.1 ____ Determines cryptological security requirements based on command relationships and commander's guidance.

.2 ____ Ensures and verifies that subordinates possess the required keying material based on the operations order/CEOI.

.3 ____ Coordinates the use of and allocation of COMSEC equipment.

.4 ____ Determines transmission security requirements.

.5 ____ Determines emission security requirements.

.6 ____ Determines cryptological security requirements.

.7 ____ Determines physical security requirements.

.8 ____ Coordinates the control, acquisition, holding storage, and distribution of COMSEC materials with the CMS custodian.

.9 ____ Plans for adequate personnel and safeguards for security of communications spaces and equipment.

.10 ____ Ensures element commander is fully briefed and supported prior to deployment.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.5.5 COORDINATION OF INTELLIGENCE/CI EFFORTS

CONDITIONS:

The combat engineer unit is operating in a combat area in direct support of a ground unit, and is prepared to assume its secondary role of infantry. Additional intelligence is available from the supported unit. Reports are made to the supported unit.

STANDARDS: 11A.5.5.1 - 11A.5.5.10
EVAL: Y; N; NE

.1 ____ Unit has and uses an intelligence SOP, and denotes any differences contained in the supported unit's SOP.

.2 ____ Unit safeguards classified material.

.3 ____ Unit stresses intelligence awareness. (KI)

.4 ____ Available intelligence assets are integrated. (KI)

.5 ____ Intelligence information is disseminated to subordinate elements.

.6 ____ Patrols are debriefed by representatives from the intelligence section.

.7 ____ Intelligence data maps are maintained to keep unit commander abreast of intelligence situation, including location of civilian population concentrations, places protected by the law of war, and enemy order of battle.

.8 ____ Requests for collection efforts by outside agencies are submitted.

.9 ____ Intelligence reporting is made part of reports control system.

.10 ____ Target intelligence is maintained and provided to FSCC through continuous liaison.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

INTELLIGENCE AWARENESS

Effective intelligence awareness is far more than an emphasis on the safeguarding of classified material. It requires knowledge of intelligence matters by every Marine within the unit. Some indicators of awareness are:

a. Knowledge of collection means available.

b. Understanding of intelligence capabilities and limitations.

c. Emphasis at all levels on OPSEC.

d. Rapid reporting of raw information.

e. Exploitation of information learned from POW's.

f. Development of relevant EEI's.

INTEGRATION OF INTELLIGENCE ASSETS

The intelligence plan requires a collection effort from Marines throughout the unit. Assets to be integrated include:

a. Engineer reconnaissance patrols.

b. Local security patrols.

c. OP's.

d. LP's.

e. Combat Patrols.

f. Night vision devices.

11A.6 CONTINUING ACTIONS BY MARINES

TASK: 11A.6.1 DISCIPLINE

CONDITIONS:

The combat engineer unit has been given a mission to support tactical operations of a ground combat element. This support can vary from engineer to infantry tasks.

STANDARDS: 11A.6.1.1 - 11A.6.1.11
EVAL: Y; N; NE

.1 ____ Unit discipline is demonstrated by individual members being in control of themselves and contributing to mission accomplishment.

.2 ____ Marines take care to safeguard and clean their weapons, both individual and crew served, daily.

.3 ____ Vehicles, generators, etc., are given regular maintenance by the Marine assigned to operate them.

.4 ____ Marines employ their firepower in an orderly and organized fashion when engaged. Random wastage of ammunition is not tolerated by unit leaders.

.5 ____ Marines do not waste or abuse unit supplies or material.

.6 ____ Supplies are safeguarded from the enemy and from the weather, and are not scattered as litter on the terrain.

.7 ____ Marines operating radios do not expose themselves to radio direction finding (RDF) by unnecessary, wordy, or repetitious message traffic. Standard prowords are used and communication checks are limited. All personnel using radios adhere to required standards of performance regardless of rank.

.8 ____ Unit cannot be detected by enemy as a result of poor noise discipline.

.9 ____ Unit cannot be detected by enemy as a result of poor light discipline.

.10 ____ Marines wear the prescribed uniform at all times including individual weapon, body armor, helmet, and first aid kit.

.11 ____ Leaders actively promote field sanitation and personal hygiene by enforcing use of designated heads, good personal health habits, police of area, and inspection of foot and body sores.

EVALUATOR INSTRUCTIONS:

With exceptions evaluators will use the 90 percent rule (90 percent of the Marines 90 percent of the time) to determine whether requirements are being met. The exceptions will be communications, noise, and light discipline. These standards will stand literally. Evaluators must determine if the unit is violating light and noise discipline and communications procedures when no aggressors or EW support is available from the TEC. This task will be evaluated over the entire exercise and evaluators will note efforts of unit leaders to maintain and correct discipline. Improvement by the unit throughout the exercise, such that standards become consistently met, may receive a "YES" marking.

KEY INDICATORS: None.

TASK: 11A.6.2 DISPERSION

CONDITIONS:

The unit has been given a mission to support tactical operations of a ground combat element. This support can vary from engineer to infantry tasks.

STANDARDS: 11A.6.2.1 - 11A.6.2.7
EVAL: Y; N; NE

.1 ____ Marines do not gather in groups when maneuvering, waiting in assembly areas, or when deployed in the defense.

.2 ____ Dispersion is controlled by junior leaders who are active in keeping Marines spread out.

.3 ____ Units are not grouped together in small areas to present a lucrative target for enemy indirect fire, especially at the conclusion of an attack or a defensive action.

.4 ____ Leaders set an example of dispersion by not allowing themselves to bunch up during briefings or issuing of orders.

.5 ____ Tentage, equipment, vehicles, and radios are placed insuch a manner as to reduce their vulnerability to bursting munitions.

.6 ____ Firing positions for crewserved weapons generally are separated by a minimum of 30-35 meters.

.7 ____ All vehicles are dispersed and take advantage of terrain features to the maximum degree possible to seek cover and concealment, yet avoiding positions that will cause difficulty in exiting.

EVALUATOR INSTRUCTIONS:

This task is applicable throughout the exercise. Evaluator reaches a YES evaluation based on his observation that 90 percent of the Marines in the unit participate throughout the exercise with the quality of performance defined by the requirements.

TASK: 11A.6.3 USE OF COVER

CONDITIONS:

The combat engineer unit is supporting tactical operations. The enemy forces have direct and indirect fire, air, and EW capabilities.

STANDARDS: 11A.6.3.1 - 11A.6.3.5
EVAL: Y; N; NE

.1 ____ Individual Marines, including vehicle drivers, demonstrate by tactical and personal example, an understanding of use of covered routes and covered positions.

.2 ____ Halted elements and vehicles do not remain in exposed locales, moving immediately to the nearest cover.

.3 ____ Equipment, tentage, radios, and vehicle parking areas are sited to take advantage of cover provided by natural terrain features.

.4 ____ Individual and crewserved weapons firing positions are established in areas that permit use of natural cover while still allowing observation and adequate fields of fire.

.5 ____ All individual Marines and crewserved weapons elements make use of available material to improve cover.

EVALUATOR INSTRUCTIONS:

This task is applicable throughout the exercise. Evaluator reaches a YES evaluation based on his observation that 90 percent of the Marines in the unit participate throughout the exercise with the quality of performance defined by the requirements.

KEY INDICATORS: None.

TASK: 11A.6.4 USE OF CAMOUFLAGE AND CONCEALMENT

CONDITIONS:

The combat engineer unit is supporting tactical operations. The enemy forces have direct and indirect fire, air, and EW capabilities. The enemy also has a night observation capability.

STANDARDS: 11A.6.4.1 - 11A.6.4.4
EVAL: Y; N; NE

.1 ____ Individual Marines demonstrate attention to detail. (KI)

.2 ____ Ensures that the principles of camouflage siting, discipline, and construction are employed continuously throughout the operations.

.3 ____ Uses natural materials and camouflage screen support systems to conceal positions and vehicles from enemy ground observation to a distance of 200 meters.

.4 ____ Camouflages all positions to prevent identification by enemy aircraft by employing the use of soil, fresh foliage, and netting.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

INDIVIDUAL MARINE

Apply camouflage paint (when used) to more than just their faces, covering neck, ears, arms, and other exposed areas that might permit their detection. Include more than a handful of weeds tucked into their helmet cover, as an indicator of camouflage and concealment to cover or dull items that have a shiny reflective surface.

Continually change camouflage to match changes in vegetation and terrain.

VEHICLES

All light colored tactical markings are dulled or covered.

All reflective surfaces are dulled or covered (mirrors and windshield removed or covered).

Are equipped with proper camouflage nets.

TASK: 11A.6.5 CONDUCT LOCAL SECURITY

CONDITIONS:

The combat engineers are tasked to conduct security operations from defensive positions. The engineers are netted by radio to the supported unit's COC and are reporting as well as coordinating fire support through the COC. Enemy forces are

deployed in platoon sized units. The enemy has direct and indirect fire, air, and EW capabilities. The enemy has a night observation capability.

STANDARDS: 11A.6.5.1 - 11A.6.5.18
EVAL: Y; N; NE

.1 ____ Briefs and inspects Marines assigned local security missions.

.2 ____ Emplaces Marines and weapons in positions which offer good observation, fields of fire, concealment and cover, control enemy avenues of approach, and provide for all around defense.

.3 ____ Employs local security measures which provide for early warning, continual observation, counterreconnaissance screening, and avoids the element of enemy surprise.

.4 ____ Considers active and passive OPSEC measures to prevent surprise and to provide greater security.

.5 ____ Positions elements to allow for their mutual support, emphasizing coordinated surveillance, exchange of information, coordinated fires, and final protective fires.

.6 ____ Plans primary and supplementary positions.

.7 ____ Plans a defense in depth through the use of supplementary positions and the planned use of shifting fires into threatened areas.

.8 ____ Employs a series of natural and artificial obstacles to restrict, delay, block, or stop the movement of enemy forces.

.9 ____ Coordinates a detailed fire plan, considering the fires of organic weapons, mortars, artillery, NGF, and air.

.10 ____ Ensures flexibility is built into the plan through the identification of a reserve, centralized control over supporting fires, shifting of fires, and supplementary positions.

.11 ____ Actively patrols the assigned area.

.12 ____ Maintains the dispersion of units and individuals throughout the operation to avoid excessive casualties.

.13 ____ Makes maximum use of surveillance devices in order to detect enemy movement.

.14 ____ Uses available time effectively in the planning and preparation of defensive positions.

.15 ____ Patrol routes are plotted and reported to the supported unit's COC.

.16 ____ Patrols are not dispatched in repetitive or stereotyped patterns.

.17 ____ Security elements report departure and return per established procedures.

.18 ____ Disseminates combat information acquired by security elements throughout the unit, and as required to higher headquarters.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.6.6 PLAN PATROLS

CONDITIONS:

The combat engineer unit is in support of tactical operations and has been tasked to employ as infantry. The engineers have been given the mission to conduct security operations from a separate location. The engineers are netted by radio to the supported unit's COC and are reporting as well as coordinating fire support through the COC. Enemy forces are deployed in platoon sized units. The enemy has direct and indirect fire, air, and EW capabilities. The enemy has a night observation capability.

STANDARDS: 11A.6.6.1 - 11A.6.6.18
EVAL: Y; N; NE

.1 ____ Identifies the requirement for and specifies type of patrol to be conducted based on METT-T.

.2 ____ Develops a day and night patrol schedule.

.3 ____ Assigns a specific reconnaissance or combat mission. (KI)

.4 ____ Designates a patrol leader immediately.

.5 ____ Alerts unit to patrol in sufficient time to allow for proper preparation.

.6 ____ Issues a verbal or written order to the patrol leader in the standard five paragraph operations order format.

.7 ____ Provides rules of engagement (ROE) for the patrol.

.8 ____ Unit commander assists the patrol leader in the preparation of the patrol.

.9 ____ Coordinates the patrol with higher, adjacent, and units or personnel immediately affected by the patrol.

.10 ____ Plans adequate control measures, i.e., specific time of departure, time restrictions, checkpoints, rally points, communications procedures, available land navigation aids, and night movement procedures if night patrolling is scheduled.

.11 ____ Requests aerial photos or any available special topographic products.

.12 ____ Plans detailed fire support plan.

.13 ____ Arranges for any additional support that is required.

.14 ____ Develops a withdrawal plan.

.15 ____ Plans primary and alternate patrol routes that avoid civilian centers as much as possible.

.16 ____ Develops patrol order using procedures contained in unit SOP.

.17 ____ Plans patrol routes that avoid ridgelines or topographic crests except as necessary to maintain communications.

.18 ____ Avoids roads, trails, or other terrain features that are natural lines of drift.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

PATROL TYPES

Patrols are classified by the type of mission performed. Reconnaissance patrols attempt to reach their objective, accomplish their missions, return to friendly positions without being detected by or engaging the enemy, and provide required reports. Combat patrols provide security, establish and/or maintain contact with friendly and enemy forces, deny the enemy access to terrain, and harass, destroy, or capture enemy personnel, equipment, and installations. Combat patrols also collect and report all combat information gathered. These patrols are generally planned to screen the flanks, areas, and routes in the assigned areas.

Reconnaissance patrols are not dispatched without the identification of a specific mission. These patrols generally fall into the categories related to the type of information to be examined.

a. Area recon in search of enemy forces, LZ's, etc.

b. Point recon for the purpose of examination of a particular site, bridge, stream crossing, etc.

c. Route recon for the purpose of seeking better routes to an objective, learning about trafficability, or otherwise responding to questions about routes.

TASK: 11A.6.7 PREPARE AND BRIEF A PATROL

CONDITIONS:

The combat engineer unit is in support and has been tasked to employ as infantry. The engineers are conducting security operations from a separate location. An aggressive patrolling program has been initiated. The patrol has been planned and the patrol order prepared.

STANDARDS: 11A.6.7.1 - 11A.6.7.7
EVAL: Y; N; NE

.1 ____ Issues the patrol order to all patrol members.

.2 ____ Utilizes a terrain model, sketch, or other visual aids when briefing the plan.

.3 ____ Ensures all personnel understand the order, and are cognizant of their duties and responsibilities.

.4 ____ Allows an opportunity for questions and comments.

.5 ____ Issues weapons and special equipment, and conducts maintenance checks, LTI's, and preoperations checks on required special equipment.

.6 ____ Conducts a patrol rehearsal emphasizing immediate drills, actions at danger areas, actions at the objective. If night patrolling is scheduled, rehearses night movement procedures.

.7 ____ Conducts a final inspection for all personnel and equipment to ensure prescribed items are available, serviceable, carried correctly, and all personnel understand the mission.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.6.8 CONDUCT PATROLS

CONDITIONS:

The combat engineer unit is in support and has been tasked to employ as infantry. The engineers are conducting security operations from a separate location. An aggressive patrolling schedule has been initiated. The patrol has received the patrol order, been inspected, rehearsed, and is ready to depart.

STANDARDS: 11A.6.8.1 - 11A.6.8.9
EVAL: Y; N; NE

.1 ____ Departs at the time specified.

.2 ____ Departure and route of patrol is plotted and forwarded to the supported unit's COC/FSCC in a timely manner.

.3 ____ Patrol action is controlled and coordinated.

.4 ____ Employs camouflage, noise, and light discipline.

.5 ____ Demonstrates the ability to land navigate within 25 meters of designated checkpoints.

.6 ____ Actions on enemy contact are aggressive, as rehearsed, and use available fire support.

.7 ____ Reports action on enemy contact, and the progress of the patrol as required.

.8 ____ Debriefs patrol members upon their return.

.9 ____ Results of patrol and contacts are reported to higher headquarters.

EVALUATOR INSTRUCTIONS:

If patrols are dispatched, the evaluator deploys aggressors to provide the opportunity for contact.

KEY INDICATORS: None.

TASK: 11A.6.9 EMPLOYS RADIO EQUIPMENT

CONDITIONS:

The combat engineer unit is supporting combat operations. A communications plan has been distributed.

STANDARDS: 11A.6.9.1 - 11A.6.9.9
EVAL: Y; N; NE

.1 ____ Demonstrates effective frequency and antenna separation.

.2 ____ Selects and correctly employs the proper antenna.

.3 ____ Follows correct safety techniques.

.4 ____ Follows proper grounding procedures.

.5 ____ Complies with lost communications procedures.

.6 ____ Demonstrates effective equipment power output management to ensure reliable communications.

.7 ____ Follows correct operator procedures.

.8 ____ Employs COMSEC equipment properly, and operators use correct COMSEC procedures.

.9 ____ Employs techniques to alleviate environmental and weather conditions affecting equipment employment.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.6.10 EMPLOYS ECCM

CONDITIONS:

The combat engineer unit is supporting combat operations. A communications plan has been distributed.

STANDARDS: 11A.6.10.1 - 11A.6.10.10
EVAL: Y; N; NE

.1 ____ All radio nets specified as covered circuits in the communications plan, are operated in the covered mode, unless otherwise ordered.

.2 ____ Uses terrain masking techniques where practical.

.3 ____ Uses only authorized codes.

.4 ____ Correctly uses authentication/numerical encryption.

.5 ____ Radio operators continue to operate through enemy jamming activity without revealing its effectiveness, and send messages by alternate means if available.

.6 ____ Wire circuits are installed at every feasible opportunity.

.7 ____ Net discipline is maintained using proper procedures.

.6 ____ Adheres to emission control (EMCON) conditions.

.8 ____ Transmitting antennas are sited on the reverse slope of the hill (away from the enemy) when practicable.

.9 ____ Beadwindow/Gingerbread procedures are properly used.

.10 ____ Reports meaconing, intrusion, jamming, and interference (MIJI) per formats and procedures designated.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.6.11 PROVIDE COMSEC SECURITY MEASURES

CONDITIONS:

The combat engineer unit is supporting tactical operations. A communications plan has been distributed.

STANDARDS: 11A.6.11.1 - 11A.6.11.2
EVAL: Y; N; NE

.1 ____ Ensures the safeguards and accountability of classified material and equipment.

.2 ____ Adheres to current directives applicable to CMS material.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.6.12 CONDUCT OPERATOR MAINTENANCE

CONDITIONS:

The combat engineer unit is supporting combat operations. A communications plan has been distributed.

STANDARDS: 11A.6.12.1 - 11A.6.12.3
EVAL: Y; N; NE

.1 ____ Possesses equipment record jackets and appropriate TM's.

.2 ____ Performs PM per applicable TM's.

.3 ____ Conducts routine preventive maintenance checks.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.6.13 RESPONSE TO ENEMY AIR CAPABILITIES

CONDITIONS:

The combat engineer unit is supporting tactical operations. The enemy in addition to direct and indirect fire and EW capabilities has a fixed and rotary wing aircraft capability.

STANDARDS: 11A.6.13.1 - 5D.6.13.9
EVAL: Y; N; NE

.1 ____ Unit has established procedures for both passive and active air defense.

.2 ____ Air guards are designated. (KI)

.3 ____ Unit has an alarm system to warn of air attack.

.4 ____ Marines within the unit are aware of the meaning of the alarm.

.5 ____ If given advance warning of approaching hostile aircraft, Marines react by dispersing per established passive measures.

.6 ____ If attacked, unit takes positions that provide masking, and limit the approach angle of the aircraft by using the terrain.

.7 ____ Unit machinegun teams engage enemy aircraft when under attack within assigned sectors of fire.

.8 ____ Small unit leaders demonstrate ability to concentrate small arms fire against attacking aircraft by maintaining fire control and massing fires.

.9 ____ Unit reports attack by enemy air to higher headquarters by flash message.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

AIR GUARDS

Air guards within each subordinate element are designated to watch for the approach of hostile aircraft. Specific sectors are assigned, and additional guards are used when moving. They are able to:

a. State the nature of the threat; i.e., fixed wing jet, fixed wing prop, or rotary wing.

b. Describe the signal established as the alarm for attack.

c. Identify friendly aircraft that are in support of the unit.

TASK: 11A.6.14 HANDLING PRISONERS OF WAR (POW)

CONDITIONS:

The engineer unit is operating in an area separated from the supported unit. It has taken POW's. The supported unit has designated a POW collection point.

STANDARDS: 11A.6.14.1 - 11A.6.14.9
EVAL: Y; N; NE

.1 ____ Unit has and uses an SOP for POW's.

.2 ____ Individual Marines handling POW's segregate them by type and sex; officers, NCO's, troops, civilian, combatants, etc.

.3 ____ POW's are searched immediately after capture; weapons and items of potential intelligence value are tagged and evacuated at the same time as POW; personal items, protective clothing, and equipment are returned to POW.

.4 ____ POW's are required to remain silent and not permitted to converse among themselves.

.5 ____ POW's are processed with speed to obtain maximum intelligence benefits.

.6 ____ Marines handling POW's ensure that they are safe-guarded from abuse and from hazards of enemy fire.

.7 ____ Perishable information obtained from POW's is reported immediately to higher headquarters.

.8 ____ Enemy casualties receive the same medical care and MEDEVAC priority as friendly casualties with any difference in treatment based solely on medical reasons.

.9 ____ POW's are escorted under guard to the designated collection point as soon as possible.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

SEARCHING

The POW's should be disarmed and searched for concealed weapons and for equipment and documents of particular intelligence value immediately upon capture, unless the number of POW's captured, enemy action, or other circumstances make such a search impracticable. Until each POW is searched, the responsible troops must be particularly alert to prevent the use of concealed weapons or destruction of documents or equipment.

EQUIPMENT

Items of personal or individual equipment which are new or appear to be of a type not previously seen may be of intelligence value and should be processed via intelligence channels. Types of equipment or supplies which may be individually carried or worn include, but are not limited to, all types of weapons, ammunition, personal equipment (protective masks, first aid kits, etc.), clothing, and rations.

DOCUMENTS

A captured document is any piece of recorded information which has been in the hands of the enemy. When such documents are taken from a POW for safekeeping and delivery to intelligence personnel, care must be taken to assure that they can

later be identified with the individual POW from whom it was taken. Documents and records of a personal nature must be returned to the POW from whom it was taken. In no instance should the personal identity card of a POW be taken.

PERSONAL EFFECTS

Except as indicated below, POW's should be permitted to retain all of their personal effects including money, valuables, protective equipment such as helmets, protective masks, and like items; effects and articles used for clothing or eating, except knives and forks; identification cards or tags; and badges of grade and nationality. When items of equipment issued for personal protection are taken, they must be replaced with equivalent items serving the same purpose. Although money and other valuables may be taken from POW's as a security measure, they must be receipted for and a record maintained.

SEGREGATION

The segregation of POW's by categories first requires that individual POW's be identified as belonging to particular category. While time and combat conditions may not permit the detailed interrogation of POW's to make all such determinations, it should be possible to readily identify and separate POW's according to status (officers/enlisted) and sex.

TASK: 11A.6.15 CASUALTY HANDLING

CONDITIONS:

The combat engineer unit is operating in an area separated from the supported unit. It has taken casualties that require evacuation. The supported unit has designated a medical collection point.

STANDARDS: 11A.6.15.1 - 11A.6.15.6
EVAL: Y; N; NE

.1 ____ Ensures unit understands supported unit's casualty procedures, priorities, and required reports.

.2 ____ Marines dealing with casualties prior to arrival of corpsmen demonstrate buddy aid knowledge in treatment of fractures, penetrating wounds, shock, and sucking chest wounds.

.3 ____ Marines tagged as lightly wounded apply self aid.

.4 ____ Marines who must be evacuated are transported by man carry, litter, vehicle, or helicopter to the collection point or treatment site in a tactically sound and expeditious manner that shows regard for the type of wound of the casualty.

.5 ____ Casualty reporting begins immediately, starting at the level of the junior leader and terminating at the unit headquarters.

.6 ____ Wounded Marine's equipment is handled per combat engineer unit SOP.

EVALUATOR INSTRUCTIONS:

This task is applicable in all evaluations, and should be simulated by evaluator or TECG input to ensure knowledge.

KEY INDICATORS: None.

11A.7 HELICOPTER ASSAULT

TASK: 11A.7.1 HELILIFT PREPARATION

CONDITIONS:

The unit is tasked to provide engineer support while operating independent of the supported unit. The mission calls for heliborne insertion into an unsecured LZ

where enemy contact is possible. The unit is either aboard ship or in a protected assembly area. Supported unit elements are not available for augmentation; however, limited HST support is available.

STANDARDS: 11A.7.1.1 - 11A.7.1.8
EVAL: Y; N; NE

.1 ____ Individual Marines and their equipment are inspected.

.2 ____ Individual weapons are checked and test fired if situation permits.

.3 ____ Unit organizes for combat, making attachments and detachments per the operation order.

.4 ____ Heliteams are organized and staged per the schedule for their delivery into the LZ.

.5 ____ Subordinate element commanders complete orders and individual Marines are briefed on mission and situation expected in the LZ.

.6 ____ Supplies selected for delivery during buildup in the LZ and emergency resupply loads are rigged for lift according to their sequence for landing.

.7 ____ Weapons and equipment to be lifted are rigged and safety checked.

.8 ____ ZIPPO briefing is held to ensure that last minute details requiring coordination are discussed face to face between air and ground commanders. (Reference NWP-55-9-ASH for format.)

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.7.2 ENPLANEMENT

CONDITIONS:

The unit is tasked to provide engineer support while operating independent of the supported unit. The mission calls for heliborne insertion into an unsecured LZ where enemy contact is possible. The unit is either aboard ship or in a protected assembly area.

STANDARDS: 11A.7.2.1 - 11A.7.2.4
EVAL: Y; N; NE

.1 ____ Heliteams are staged and ready to board when called away.

.2 ____ All Marines lifted are manifested according to unit SOP to ensure accountability.

.3 ____ Individual Marines exhibit clear understanding of safety procedures when boarding helicopters.

.4 ____ Heliteams are loaded in time to permit the helicopters to make scheduled take-off time(s).

EVALUATOR INSTRUCTIONS:

Unit evaluation should not be affected by timeliness or availability of helicopter support not otherwise due to a lack of planning on the unit's part. If the operation is to be conducted from an LZ ashore, the unit must demonstrate that it is security conscious if the scenario calls for enplanement from an LZ designated as anything but completely secured by another unit. Evaluator may permit aggressor forces to disrupt the lift if no action has been taken to ensure that the lift LZ is secure.

KEY INDICATORS: None.

TASK: 11A.7.3 ASSAULT INTO A LANDING ZONE

CONDITIONS:

The unit is tasked to provide engineer support while operating independent of the supported unit. The mission calls for heliborne insertion into an unsecured LZ where enemy contact is possible. Supported unit elements are not available for augmentation; however, limited HST support is available.

STANDARDS: 11A.7.3.1 - 11A.7.3.5
EVAL: Y; N; NE

.1 ____ On landing, Marines deplane quickly, safely, and disperse in assigned security sectors as helicopters lift out of zone.

.2 ____ Initial elements immediately begin clearing LZ of enemy forces in assigned sectors.

.3 ____ Forward observers and forward air controllers, if attached, are included in initial echelons.

.4 ____ HST representatives arrive in assault lift to initiate LZ control.

.5 ____ Initial elements establish communications capability and make initial SITREP to unit commander.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATOR: None.

TASK: 11A.7.4 SECURING THE LANDING ZONE

CONDITIONS:

The unit is tasked to prepare a fire support base operating independently and in advance of the supported unit. The mission calls for heliborne insertion into an unsecured LZ where enemy contact is possible. Supported unit elements are not available for augmentation; however, limited HST support is available.

STANDARDS: 11A.7.4.1 - 11A.7.4.4
EVAL: Y; N; NE

.1 ____ Initial elements expand zone through offensive action to secure the LZ and suppress fire.

.2 ____ HST expands operations. (KI)

.3 ____ Engineer elements initiate operations. (KI)

.4 ____ When supported unit commander lands in LZ and establishes forward CP, the engineer OIC reports status of preparations and assumes further engineer tasking.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

HST OPERATIONS

Employment of HST personnel releases Marines of the unit for duties other than operation of the LZ. HST displays panels; conducts radio communications with all helicopters; selects sites for delivery of various supplies and equipment; provides coordination of all MEDEVAC's, etc.

ENGINEER OPERATIONS

Engineer elements are used to clear mines located in the LZ, to destroy obstacles or other safety hazards in the LZ, and to make limited improvements to the LZ.

11A.8 NBC OPERATIONS

TASK: 11A.8.1 PREPARE FOR NBC OPERATIONS

CONDITIONS:

Threat forces have employed NBC munitions in the area where the unit is assigned in general support, aimed at destroying/disrupting operations. Due to the threat, passive and active defense measures must be used for survival of the combat engineers.

STANDARDS: 11A.8.1.1 - 11A.8.1.12
EVAL: Y; N; NE

.1 ____ Combat engineer unit has an SOP which outlines procedures for enemy NBC strikes and reports required.

.2 ____ All individual NBC defense equipment authorized by the unit table of equipment (T/E) is issued to each individual and is serviceable.

.3 ____ All unit NBC defense equipment authorized by T/E is operationally ready and distributed to designated and trained/knowledgeable operators.

.4 ____ Shortages are identified and replacement actions are taken.

.5 ____ Decontamination equipment (mops, brooms, shovels, rags) and bulk decontaminates are assembled, and prepared for ready transport to a decontamination area.

.6 ____ M11 decontamination equipment units are filled (water used for training).

.7 ____ NBC trained personnel are available on a 24 hour a day basis.

.8 ____ MOPP level is established by the supported unit and personnel are at or above, required MOPP level.

.9 ____ Unit commanders are able to utilize the IM-143 or the AN/PDR-75 radiac detector and report the readings to higher headquarters.

.10 ____ Unit leaders thoroughly understand MOPP for the control of exposure of personnel to NBC hazards.

.11 ____ Marines are able to properly identify NATO or Threat NBC contamination markers.

.12 ____ The unit maximizes utilization of terrain features for cover, concealment, and topographic shielding.

EVALUATOR INSTRUCTIONS:

Provide the unit information to expect an imminent nuclear attack by the enemy, and integrate NBC scenarios with normal assignments. Evaluator(s) should be school trained in the area of NBC Defense (MOS 57XX) or be thoroughly trained in this area as part of Evaluators' School.

KEY INDICATORS: None.

TASK: 11A.8.2 PREPARE FOR NUCLEAR ATTACK

CONDITIONS:

Combat engineer unit is informed that nuclear weapons have been used in the theater of operations.

STANDARDS: 11A.8.2.1 - 11A.8.2.11
EVAL: Y; N; NE

.1 ____ Backup command, and control and communications procedures are identified.

.2 ____ Subordinate/displaced elements are alerted.

.3 ____ Unit continues their mission while implementing actions to minimize casualties and damage.

.4 ____ Personnel minimize exposure by rolling down sleeves, buttoning collars, and wearing additional clothing equal to two layers.

.5 ____ Vehicles and equipment are protected from heat, blast, and radiation.

.6 ____ Electronic equipment is protected from electromagnetic pulse (EMP) and transient radiation effects on electronics (TREE) by removing it from exposed locations and placing it in covered/hardened locations/vehicles.

.7 ____ Periodic monitoring is initiated, using available survey instruments.

.8 ____ Vehicles are placed behind masking terrain.

.9 ____ All loose items, flammable/explosive items, food, and water are secured/protected from heat, blast, and radiation.

.10 ____ Personnel take cover in fighting holes, bushes, vehicles, existing shelters (basements, culverts, caves), or lie prone on the ground.

.11 ____ Marines are familiar with standard first aid procedures to provide self/buddy aid for nuclear blast and thermal effects.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.8.3 RESPOND TO THE INITIAL EFFECTS OF A NUCLEAR ATTACK

CONDITIONS:

A surface or subsurface nuclear detonation has occurred.

STANDARDS: 11A.8.3.1 - 11A.8.3.6
EVAL: Y; N; NE

.1 ____ Upon recognizing the attack, all personnel take immediate action to shield themselves from blast and heat of detonation.

.2 ____ Chain of command and communications are maintained or reestablished. Unit resumes mission, if possible.

.3 ____ NBC-1 initial and follow-up reports (as required) are rapidly submitted to unit headquarters by personnel designated or responsible for collecting the information. Reliable and complete reports are rapidly forwarded, by secure means when possible.

.4 ____ Casualties are given first aid and are evacuated to a medical treatment station as the mission permits. Fatalities are evacuated to a graves registration collection point.

.5 ____ Damage assessment is submitted by secure means to higher/supported headquarters per SOP.

.6 ____ Continuous monitoring is initiated, using available survey instruments.

EVALUATOR INSTRUCTIONS:

Nuclear attack is simulated by the detonation of an artillery or nuclear blast simulator or by other appropriate means. The EMP casualties will be assessed by the evaluator for all communications systems (antennas, receivers/transmitters) that are exposed (not in a covered or hardened location/vehicle) during the simulated nuclear detonation.

KEY INDICATORS: None.

TASK: 11A.8.4 RESPONSE TO THE RESIDUAL EFFECTS OF A NUCLEAR ATTACK

CONDITIONS:

A surface or subsurface nuclear detonation has occurred. The unit's location is within the predicted fall-out zone. An M5A2 radiological fall-out predictor, or substitute, is available. The unit gets effective down-wind messages at least once every 3 hours. NBC-2 report is furnished to the unit about 15 minutes after the detonation, or prepared by the unit; NBC-3 report is furnished about 45 minutes after detonation; NBC-5 report and/or contamination overlay is provided about 4 hours after the detonation.

STANDARDS: 11A.8.4.1 - 11A.8.4.11
EVAL: Y; N; NE

.1 ____ Unit mission is performed concurrently with all other actions.

.2 ____ Unit is advised of estimated time of fall-out arrival and subordinate units are notified.

.3 ____ Continuous monitoring is maintained using available survey instruments.

.4 ____ Equipment, munitions, POL, food, and water are protected from fallout.

.5 ____ Personnel take protective measures to minimize fall-out effects as mission permits.

.6 ____ NBC-4 reports are forwarded, as required, to the supported unit by secure means.

.7 ____ Unit total dose information is recorded and reported to the supported unit, using available secure means.

.8 ____ Exposure is minimized while the command element determines if relocation to a clean area is necessary or possible.

.9 ____ Personnel are able to handle and provide first aid treatment to casualties in a nuclear environment.

.10 ____ Casualties and fatalities are assessed.

.11 ____ Vehicles/equipment are assessed for damage.

EVALUATOR INSTRUCTIONS:

Engineer unit commander is advised of estimated time of fallout arrival.

KEY INDICATORS: None.

TASK: 11A.8.5 PERFORM RADIOLOGICAL DECONTAMINATION

CONDITIONS:

Fallout has ceased, and personnel and equipment are contaminated. The hazard to personnel does not allow time for the radiation to decay to a minimum level. Time and tactical situation permits hasty decontamination. Decontamination support is not available.

STANDARDS: 11A.8.5.1 - 11A.8.5.11
EVAL: Y; N; NE

.1 ____ Decontamination priorities are established.

.2 ____ A hasty decontamination point is established out of the contaminated area.

.3 ____ Movement to the decontaminated site is controlled and is tactical.

.4 ____ Decontamination personnel wear appropriate protective clothing and equipment.

.5 ____ Unit equipment and vehicles are decontaminated using appropriate expedient devices.

.6 ____ Contaminated areas are marked with NATO standard NBC markers.

.7 ____ Adequacy of decontamination is determined using available personnel and equipment monitoring instruments.

.8 ____ Contaminated materials are discarded according to tactical SOP, marked as contaminated, and location is provided to higher headquarters.

.9 ____ Decontamination personnel are decontaminated, as necessary.

.10 ____ Operational Exposure Guidance (OEG) is not exceeded.

.11 ____ Total dose information is recorded and reported to higher headquarters.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.8.6 CROSS A RADIOLOGICAL CONTAMINATED AREA

CONDITIONS:

Tactical situation forces the unit to cross a radiological contaminated area while moving to new sites. The unit receives a NBC-5 report or contamination overlay from higher headquarters.

STANDARDS: 11A.8.6.1 - 11A.8.6.10
EVAL: Y; N; NE

.1 ____ NBC-5 report and/or contamination overlay is posted to the situation map and route determined.

.2 ____ Route clearance and approval is obtained, if necessary.

.3 ____ Turn back dose and dose rate are provided to advance party and/or reconnaissance team.

.4 ____ Vehicles receive additional shielding and personnel are provided all available protection from dust.

.5 ____ Advance party and/or reconnaissance team is dispatched to reconnoiter new areas.

.6 ____ Crosses suspected contaminated area while employing contamination avoidance techniques.

.7 ____ Operational exposure guidance is not exceeded.

.8 ____ After clearing the contaminated area, the degree of personnel and equipment contamination is determined, using available personnel and equipment monitoring instruments.

.9 ____ Decontamination priorities are established and performed, as required.

.10 ____ Unit total dose information is recorded, using available total dose instruments, and reported to higher headquarters.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.8.7 PREPARE FOR A FRIENDLY NUCLEAR STRIKE

CONDITIONS:

Unit receives a friendly nuclear STRIKWARN per FM 3-3, appendix G. Unit is within minimum safe distance (MSD) 2 to 3.

STANDARDS: 11A.8.7.1 - 11A.8.7.11
EVAL: Y; N; NE

.1 ____ Unit accurately and completely applies the STRIKWARN to the situation map within 5 minutes after message receipt.

.2 ____ Pertinent information regarding the planned detonation (time of burst, ground zero, fall-out coverage, MSD, etc.) is available to the unit.

.3 ____ Unit is advised of the vulnerability of the unit to the burst (within MSD 1, 2, or 3) and residual contamination (within predicted fall-out zone).

.4 ____ Unit is advised of the measures needed to prevent casualties, damage, and extended interference with the mission.

.5 ____ Unit implements protective measures, as directed by higher headquarters, consistent with the mission.

.6 ____ Personnel minimize exposure by rolling down sleeves, buttoning collars, and wearing additional clothing equal to a two layer uniform.

.7 ____ Personnel take cover in fighting positions, bunkers, armored vehicles, existing shelters (basements, culverts, caves, tunnels, etc.), or lie prone on open ground.

.8 ____ Vehicles are placed behind masking terrain.

.9 ____ Electronic devices are turned off; erected antennas are disassembled; antennas are tied down.

.10 ____ All loose items (small weapons, tools, etc.) and highly flammable/explosive items (POL, propellants, etc.) are placed in armored vehicles or shelters.

.11 ____ Acknowledges the warning before the expected time of burst. All subordinate units have been warned and protective measures implemented.

EVALUATOR INSTRUCTIONS:

Evaluator simulates nuclear detonation with an artillery or nuclear blast simulator, or informs the unit that nuclear blast has occurred. Evaluator assesses casualties and damage to unprotected personnel and equipment.

KEY INDICATORS: None.

TASK: 11A.8.8 PREPARE FOR A CHEMICAL AGENT ATTACK

CONDITIONS:

Unit is informed that chemical weapons have been used in the theater of operations and that a chemical attack is imminent.

STANDARDS: 11A.8.8.1 - 11A.8.8.13
EVAL: Y; N; NE

.1 ____ Unit has and uses a chemical defense SOP which addresses chemical defense/decontamination procedures.

.2 ____ Unit is directed to increase MOPP consistent with mission, temperature, work rate, and commander's guidance.

.3 ____ Essential tasks that require a high degree of manual dexterity or physical strength, and are difficult to perform in MOPP 4 are identified. Alternate methods, such as rotating or assigning additional personnel, are planned.

.4 ____ Marines identify criteria for and demonstrate the capabilities for donning the protective mask and chemical protective ensemble.

.5 ____ Establishes buddy system to facilitate monitoring/treatment for chemical agent poisoning and emergency decontamination of team members.

.6 ____ Unit continues its mission while implementing all actions to minimize casualties and damage.

.7 ____ Portions of essential equipment, munitions, POL, food, and water supplies that cannot be placed in a shelter are covered with expendable or any readily available decontaminated tarps, shelter halves, or ponchos, etc.

.8 ____ Detector paper is affixed to visible, horizontal surfaces of protective clothing and on equipment, munitions, etc.

.9 ____ Unit decontamination equipment is checked to ensure the M11 is filled, individuals have complete M13, and M256 kits, and there is an available water source with a supporting road network.

.10 ____ Potential decontamination sites are reported to higher headquarters.

.11 ____ Available chemical agent alarms are set up and monitored.

.12 ____ Protective NBC equipment and supplies are properly used and maintained in a high state of serviceability.

.13 ____ Marines demonstrate a knowledge of chemical agent symptoms.

EVALUATOR INSTRUCTIONS:

Unit is informed that chemical weapons have been used in theater and that attack is imminent.

KEY INDICATORS: None.

TASK: 11A.8.9 RESPOND TO A CHEMICAL AGENT ATTACK

CONDITIONS:

Combat engineer unit is subjected to a chemical agent attack.

STANDARDS: 11A.8.9.1 - 11A.8.9.19
EVAL: Y; N; NE

.1 ____ Upon hearing a chemical alarm, personnel take immediate protective measures followed by treatment/decontamination of casualties. (KI)

.2 ____ Personnel automatically mask upon notification of any enemy artillery, rocket, or air attack/overflight.

.3 ____ Personnel automatically mask upon perceiving a suspicious odor, airborne droplets/mist, or smoke from unknown source.

.4 ____ Marines do not unmask until authorized by their immediate commander. (KI)

.5 ____ Marines are able to perform their assigned missions for at least 4 hours while in MOPP 4.

.6 ____ Type of chemical agent is identified and reported using available detector kit.

If presistent agent:

.7 ____ Contamination is located and marked with NATO standard markers.

.8 ____ Location and type of contamination is reported to higher headquarters.

.9 ____ Supported unit determines if immediate relocation to a clean area is necessary or possible and advises the engineer element leader.

.10 ____ Priorities are determined for decontamination. Decontamination support is requested, if required.

.11 ____ WIA's are wrapped, marked as contaminated, and evacuated as mission permits. Medical treatment facility is warned.

.12 ____ KIA's are wrapped, marked as contaminated, and evacuated as mission permits. Graves registration collection point is warned.

If nonpersistent agent:

.13 ____ Unmasking procedure is followed. (KI)

.14 ____ WIA's are evacuated to the medical treatment facility as the mission permits.

.15 ____ KIA's are evacuated to the graves registration collection point as the mission permits.

.16 ____ Detector units are serviced and returned to operation.

.17 ____ Expended chemical defense items are replaced as required.

.18 ____ Unit adjusts MOPP level as required.

.19 ____ Unit personnel are able to handle and provide first aid treatment to casualties in a chemical environment.

EVALUATOR INSTRUCTIONS:

Selected personnel are presented decontamination training kits and first aid treatment training devices to "treat designated casualties." Every attempt must be made to provide a realistic situation through devices, scenarios, or other aids developed through innovation. The key to a thorough evaluation is a believable, well supported situation imposed by the trainer/evaluator. Site should support the type of activities being conducted and permit the safe use of simulators and devices.

KEY INDICATORS:

CHEMICAL CASUALTIES

Chemical casualties are described as:

- Personnel without mask and hood within arms reach, without decontamination kits, or not wearing chemical protective clothing.

- Personnel not taking immediate corrective actions upon perceiving the attack, hearing a chemical agent alarm, being ordered to mask, or using incorrect masking procedures (not masking within 9 seconds), or making incorrect use of decontamination kits/first aid treatment items.

- Marines who unmask or otherwise assume a lesser degree of MOPP without being authorized to do so.

UNMASKING PROCEDURES

Unmasking procedures outlined below are to be initiated after being notified by higher headquarters or the immediate commander.

1. When a detector kit is available, the following unmasking procedures will be adhered to:

a. After determining absence of agents, two or three Marines unmask for 5 minutes.

b. Marines remask and are examined in a shady area for symptoms for 10 minutes.

c. If no symptoms appear, remainder of unit may unmask.

2. When no detector kit is available, the following unmasking procedures will be adhered to:

a. Two or three Marines take a deep breath, hold it, break the seal on their masks, and keep their eyes open for 15 seconds.

b. Then they clear their masks, reestablish the seal, and wait 10 minutes.

c. If no symptoms appear, the same Marines break the seal of their masks, take two or three deep breaths, clear and reseal their masks.

d. If after 10 minutes no symptoms have appeared, the same Marines unmask for 5 minutes and then remask.

e. If after 10 more minutes no symptoms have appeared, the rest of the unit may unmask.

TASK: 11A.8.10 PERFORM HASTY DECONTAMINATION

CONDITIONS:

Personnel and equipment have been contaminated by a chemical agent. Emergency decontamination has been accomplished. Time is not available for complete decontamination. The hazard is such that partial decontamination is required. All personnel are maintaining a maximum MOPP.

STANDARDS: 11A.8.10.1 - 11A.8.10.8
EVAL: Y; N; NE

.1 ____ Personnel decontaminate individual weapons and unit equipment using appropriate decontamination kits.

.2 ____ Extent of decontamination is determined and decontamination priorities are established.

.3 ____ Contaminated protective covers are removed, decontaminated, or discarded.

.4 ____ Decontamination procedures are appropriate to items being decontaminated. (KI)

.5 ____ Unit equipment and vehicles are decontaminated using appropriate expedient devices.

.6 ____ Adequacy of decontamination is determined. If inadequate:

a. Procedures are repeated.

b. Decontamination support is requested

or

c. Risk of using equipment is accepted.

.7 ____ Contaminated materials are discarded according to the tactical SOP, marked as contaminated, and their location is provided to higher headquarters.

.8 ____ Unit reduces MOPP level if appropriate.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

DECONTAMINATION PROCEDURES

1. If support is not available for conducting hasty decontamination, initial decontamination of unit equipment, vehicles, and weapons may be accomplished by:

a. Removing all gross liquid contamination with sticks or other improvised devices, which are buried after use.

b. Utilizing M11 decontamination apparatuses filled with DS2 to spray areas frequently used or touched. (Water is used to simulate DS2 in a training environment.)

2. Contaminated items that may need special decontamination treatment are:

a. POL, food, and water containers and munitions. These are washed with soapy water, rinsed, and thoroughly air dried.

b. Communications equipment and other electronic equipment. Decontaminated with hot air, by weathering, or all metal parts are wiped with rags soaked with DS2 (water is used for training purposes).

c. Optical Instruments. Blotted with rags and then wiped with lens cleaning solution or organic solvent.

3. Adequacy of decontamination is determined using the chemical agent detector kit. If contamination is still present, decontaminate again.

TASK: 11A.8.11 COORDINATE FOR DELIBERATE DECONTAMINATION OF EQUIPMENT

CONDITIONS:

Equipment has been contaminated by a chemical agent. Hasty decontamination has been accomplished. Time is available for complete decontamination. Decontamination support from a decontamination unit is available upon request.

STANDARDS: 11A.8.11.1 - 11A.8.11.6
EVAL: Y; N; NE

.1 ____ Coordination is made with the decontamination unit as to time of arrival, supplies, equipment, and personnel support to be furnished by the contaminated unit, and the estimated time of completion.

.2 ____ Requests and receives route clearance to the Personnel Decontamination Station/Equipment Decontamination Station (PDS/EDS) assembly area. Advance party (personnel to augment decontamination operation and establish security) is dispatched to PDS/EDS.

.3 ____ Main body arrives at PDS/EDS assembly area and organizes for processing.

.4 ____ Decontamination begins as scheduled.

.5 ____ Unit reorganizes in a clean area upwind of residual effects for the resumption of their mission.

.6 ____ MOPP level is adjusted as required.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.8.12 EXCHANGE PROTECTIVE CLOTHING

CONDITIONS:

The protective clothing is contaminated and a suitable uncontaminated area is available.

STANDARDS: 11A.8.12.1 - 11A.8.12.2
EVAL: Y; N; NE

.1 ____ Contaminated clothing is removed without transfer of contamination.

.2 ____ Individuals put on new protective clothing.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11A.8.13 SCORE THE NBC EXAM

CONDITIONS:

Circumstances preclude the evaluation of NBC standards under field conditions. Under classroom conditions an exam will be prepared at the division/brigade level. The exam will take no more than 30 minutes. All available personnel will take the examination.

STANDARDS: 11A.8.13.1 -11A.8.13.10
EVAL: Y; N; NE;

.1 ____ Unit averaged 10 percent or higher.

.2 ____ Unit averaged 20 percent or higher.

.3 ____ Unit averaged 30 percent or higher.

.4 ____ Unit averaged 40 percent or higher.

.5 ____ Unit averaged 50 percent or higher.

.6 ____ Unit averaged 60 percent or higher.

.7 ____ Unit averaged 70 percent or higher.

.8 ____ Unit averaged 80 percent or higher.

.9 ____ Unit averaged 90 percent or higher.

.10 ____ Unit averaged 100 percent.

EVALUATOR INSTRUCTIONS:

Standards will be marked either Y or N, as appropriate. As an example, if the team average was 76 percent, Task 11A.8.13.1 through 11A.8.13.7 would be marked Y (Yes) and the remainder would be marked N (No).

REQUIRED DATA:

a. Number of personnel in unit: _____.

b. Number of personnel taking exam: _____.

c. Unit average: _____.

KEY INDICATORS: NONE.

SECTION 11B

AIR/NAVAL GUNFIRE LIAISON COMPANY (ANGLICO)

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VOLUME XI SECTION B

MISSION PERFORMANCE STANDARDS

AIR/NAVAL GUNFIRE LIAISON COMPANY (ANGLICO)

INTRODUCTION

The air and naval gunfire liaison company (ANGLICO) is a Fleet Marine Force (FMF) unit specifically organized and equipped to support a U.S. Army or allied division, or their subordinate elements.

Task organized terminal control and liaison teams are assigned to division, brigade, and battalions, for the planning, preparation, and employment of naval gunfire (NGF) and/or naval air support, and to provide necessary personnel and communications equipment required at the various echelons to request, and control the support. The mission of ANGLICO also includes the provision of supporting airborne units.

Within the context of the basic mission, there are a variety of employment options, which include:

- Attachment to a Marine Air Ground Task Force (MEF/MEB/MEU) for further attachment to adjacent allied or U.S. Army units. This option allows ANGLICO elements to be introduced into the amphibious objective area to ensure mutual supportability of forces when a Marine landing force operates with allied landing forces.

- Attachment to U.S. Army or allied units for amphibious operations. This option allows ANGLICO to assist in the planning and actual assault phase of a Joint or Combined amphibious operation not involving a USMC landing force.

- Attachment to U.S. Army airborne units for contingency operations within range of U.S. Fleet support. This option allows ANGLICO teams to be attached to airborne units who are committed to areas where support by NGF and carrier or land based naval aviation is necessary and available. ANGLICO elements so employed facilitate mutual supportability of forces, should the airborne operation be made in conjunction with an amphibious operation.

- Attachment to a U.S. Army or allied unit involved in an ongoing land campaign which is within range of U.S. Fleet support. This option allows ANGLICO elements to be attached to ground units to provide Fleet combat support or to control naval air which has been introduced in advance of the remainder of the amphibious landing force, or when no amphibious landing is anticipated.

- Attachment to U.S. or allied units tasked with the defense of advanced bases where reinforcement with combat power from carrier based air or NGF may be required.

- Special operations such as evacuation or disaster relief where communication and/or helicopter landing zone control teams are required, and Marine Air Ground Task Force elements are out of range, lack the numbers of trained personnel, or are not desired because of political restrictions.

- Reinforcement of MEF/MEB/MEU elements. This option allows ANGLICO elements to augment or reinforce Marine Air Ground Task Force air and NGF control elements.

ANGLICO coordination and control of close air support are categorized in two general areas: Those performed by the liaison officer and those performed by the air controller.

The responsibilities of the air liaison officer/supporting arms liaison team (SALT) leader are both supervisory and advisory. The exact scope of the duties to be performed depend directly on the type of unit being supported. In a situation where a U.S. Army division or its elements are being supported, his role would not be as far reaching as it could be if ANGLICO were providing support to an allied division.

ANGLICO coordination and control of NGF are likewise categorized into those performed by the SALT and those performed by the Firepower Control Team (FCT). In the case of NGF, however, the role played by the NGF liaison/control personnel remains stable whether the unit is supporting a U.S. Army or an allied division.

Recommended changes to this section should be submitted to Commandant of the Marine Corps (TDC), Washington, DC 20380-0001. Each suggested change should cite the specific item, volume, page, paragraph, and line of text, and should include comments and recommendations.

Finally, the MPS's apply to an ANGLICO unit in support of combat operations, and it is preferred that evaluations be conducted in that manner. It is recommended that commanders use MCCRES MPS's to establish training objectives and take every opportunity to informally evaluate their units. Portions of the standards may be utilized as they fit a particular scenario or operation without prejudice to the evaluated unit for not attempting all the standards. The unit's ability to exhibit their efficiency in support of tactical operations will be the basis for a succesfully demonstration of their combat readiness.

11B.1 ANGLICO SUPPORT PLANNING

TASK: 11B.1.1 INITIAL PLANNING BY ANGLICO

CONDITIONS:

The ANGLICO has been tasked to provide support to a U.S. Army or allied division, or to one of their subordinate elements. Planning and preparation has been in progress on a contingency planning basis in advance of the actual tasking.

STANDARDS: 11B.1.1.1 - 11B.1.1.23
EVAL: Y; N; NE

.1 ____ Acknowledges receipt of the warning order to higher command element and initiates detailed planning.

.2 ____ Issues a warning order to subordinate units.

.3 ____ Analyzes the mission and rules of engagement to develop specific tasks.

.4 ____ Task organizes according to the mission and unit supported. (KI)

.5 ____ Reviews essential elements of friendly information and initiates immediate measures to reduce OPSEC indicators.

.6 ____ Reviews existing contingency plans, SOP's, and lessons learned.

.7 ____ Establishes liaison with the supported unit, and requests permission to establish liaison with any outside agencies required.

.8 ____ Develops information requirements in regards to friendly forces, the enemy, area of operations, protected areas, weather, and terrain.

.9 ____ Provides input to the air and/or NGF estimates of supportability.

.10 ____ Recommends courses of action to integrate aviation assets into the supported unit's scheme of maneuver.

.11 ____ Develops detailed air and NGF plans. (See TASK: 11B.1.3 PLAN FOR THE EMPLOYMENT OF NGF.)

.12 ____ Uses the ANGLICO SOP during the planning and preparation for deployment. (KI)

.13 ____ Coordinates all air and NGF support requirements with the agency coordinating fire support for the supported unit; i.e., FSE, FSCC, SACC, etc.

.14 ____ Develops a communications plan. (See TASK: 11B.1.4 COMMUNICATIONS PLANNING.)

.15 ____ Ensures specific map/chart or aerial photography requirements are identified.

.16 ____ Provides and maintains the operational status or availability of air assets and NGF support ships, and reports changes to the G/S-3.

.17 ____ Prepares air and NGF portions to the supported unit's operations plan/order.

.18 ____ Coordinates the provision for working spaces and communications in the fire support element or FSCC of the supported unit throughout the operation.

.19 ____ Prepares an ANGLICO situation map (KI).

.20 ____ Identifies liaison officer/team requirements at the various supported and supporting unit/agencies.

.21 ____ Coordinates provisions for logistical support with the supported unit. (KI)

.22 ____ Provides detailed planning for self contained logistic support based on the mission assigned and the capabilities of the supported unit.

.23 ____ Coordinates provisions for administrative support with the supported unit.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

ANGLICO ELEMENT COMPOSITION

The variety of factors which influence the composition and equipment for the ANGLICO element to accomplish the support task assigned include:

- Mission to be supported.
- Size (i.e., division, brigade, company) of the unit to be supported.
- Grade of the unit's commander and operations officer.
- Concept of operation of the supported unit.
- Means of mobility of the supported unit (i.e., foot mobile, mechanized, air mobile).
- Extent of Fleet NGF and air support available.
- Estimated duration of support mission.

The type of unit to which support is to be provided will also have to be considered in establishing the qualifications required (i.e., when the unit is an airborne unit, all ANGLICO members assigned must be parachute qualified).

ANGLICO SUPPORT SOP

Regardless of the specific unit to be supported, certain planning and preparation must be conducted on a continuous basis. An SOP which establishes the procedures to be followed and planning/preparation tasks to be accomplished in advance of any specific tasking will assist.

The SOP should include:

- Composition/personnel qualifications for each team/party, for various support missions.
- Number and type of communication equipment to be carried by each team/party.
- Number and type of ancillary items (i.e., batteries, chargers, and antennas) to support each type of communication equipment.
- Numbers and types of COMSEC material.
- Specific doctrinal publications, orders, SOP's, and forms.
- Number, types and scale of maps/charts which will be required for any area.
- General support equipment including vehicles to be taken.
- Supplies to be taken with each team/party.
- Individual equipment to be taken by ANGLICO team/party members.

ANGLICO SITUATION MAP

The ANGLICO element/team does not need to keep a full overlay of the type normally associated with the COC or FSCC. The ANGLICO situation map must, however, be annotated with information that is pertinent to effective control and coordination of air and NGF support. The following types of items should be on the map:

- Location of friendly ground units, and firing positions.

- Location of ANGLICO teams.

- Known enemy AAA sites and reported sightings (as well as possible firing sites).

- Fire support coordination measures in effect; i.e., boundaries, CFL, FSCL, restrictive measures, ACA, etc.

PROVISIONS FOR LOGISTICAL SUPPORT

While most supported units can be expected to provide consumable supplies such as food, water, and POL, the availability of other supplies will vary. When ANGLICO elements are attached to a U.S. Army unit they should receive supply, communications, and motor transport maintenance support from the supported unit. The ANGLICO element, however, must plan and make provision for Marine Corps unique supply items and equipment maintenance.

Supply and maintenance support from allied units will usually be very limited. ANGLICO can expect a requirement for it's elements to be self sustaining in these instances.

TASK: 11B.1.2 CONDUCT PLANNING FOR THE EMPLOYMENT OF CLOSE AIR SUPPORT

CONDITIONS:

ANGLICO is supporting tactical operations. The commander's planning guidance has been provided. Courses of action are established. The enemy order of battle (EOB), and in particular the enemy air threat and missile capabilities, are known.

STANDARDS: 11B.1.2.1 - 11B.1.2.28
EVAL: Y; N; NE

.1 ____ Prepares an initial estimate of close air support requirements in coordination with the operational planners of the supported unit based on an analysis of targets.

.2 ____ Conducts air support planning concurrently with the development of the scheme of maneuver and/or plan of defense, effectively integrating air support into the plan.

.3 ____ Establishes in coordination with the supported unit, the assignment of priorities to air support requests.

.4 ____ Analyzes the targets to determine the quantity and type of ordnance required to destroy, neutralize, or suppress them. (KI)

.5 ____ Determines whether SEAD fires are required based on input from the G/S-2 and other intelligence sources, and, if so, the amount required.

.6 ____ Identifies the various agencies responsible for the control of supporting aircraft, and coordinates procedures with them.

.7 ____ Defines as necessary, air control terms used for procedures, capabilities, agencies, and equipment.

.8 ____ Coordinates procedures to be used to submit preplanned and immediate support requests.

.9 ____ Coordinates divert authorization, weather criteria, terrain clearance minimums, minimum safe distances (MSD), altitude restrictions or separations within the target area, route separations, and lost communications procedures with both the supported and supporting headquarters.

.10 ____ Coordinates the priority for the use of airspace to include authority to change the priority and instructions for conflict resolution.

.11 ____ Coordinates the establishment of a fire support coordination line (FSCL) for each day that aircraft schedules are published.

.12 ____ Coordinates airspace coordination area (ACA) procedures; i.e., authority to establish, means to effect, and method to disseminate the establishment of ACA's.

.13 ____ Establishes information exchange requirements between the supported unit and air control agencies which at a minimum includes; from/to coordinates, altitude, and start/stop times.

.14 ____ Determines the availability of an air support radar team (ASRT) for terminal control in all weather conditions.

.15 ____ Defines the procedures for the marking of close air support targets, to include the methods, timing, and means available.

.16 ____ Coordinates the location of contact points (CP) and initial points (IP) with appropriate air control agencies.

.17 ____ Identifies armament codes to be used.

.18 ____ Designates the JTAR as the standard format for immediate airstrike requests of USMC/USN aircraft.

.19 ____ Coordinates procedures with the supported unit to mark friendly positions.

.20 ____ Coordinates, with the concurrence of the supported unit, for the use of an aircraft ordnance jettison area.

.21 ____ Disseminates bomb damage assessment (BDA) reporting procedures.

.22 ____ Identifies and coordinates air warning dissemination procedures using air control communications nets.

.23 ____ Coordinates airspace coordination procedures for the operation of RPV's in the target area.

.24 ____ Provides input to the supported unit's operation order/plan.

.25 ____ Requests airborne control agencies; i.e. TACA, FAC(A), HC(A), if required to support the scheme of maneuver.

.26 ____ Coordinates procedures for the dissemination of the daily air tasking order (ATO). (KI)

.27 ____ Prepares and submits preplanned close air support requests.

.28 ____ Identifies any required reports, and establishes their format and submission times.

EVALUATORS INSTRUCTIONS: None.

KEY INDICATORS:

ORDNANCE

In selecting the appropriate ordnance for a target, considerations include:

Target construction.

Target protection.

Capabilities of air, artillery, and NGF.

Appropriate fusing (i.e., delayed or instantaneous).

Desired effect on target.

Any known ordnance shortages.

DAILY AIR TASKING ORDER

The daily ATO must be received by all air control agencies and the supported units. It is prepared after preplanned requests are consolidated and forwarded to the Tactical Air Commander through the command element. It is then published in message format through the major communication centers. Back-up procedures are required to ensure its promulgation. The following information is considered minimal:

Mission/event numbers.

Time on target/mission time.

Number and type of aircraft.

Ordnance load (as applicable).

Call signs (if not derived from the mission/event number).

Contact points and frequencies.

Procedures which minimize reliance on air to ground communications prescribe that the mission brief be included in the initial request. Rendezvous points, ingress and egress routes, initial points, target coordinates, call signs, target marking instructions, and frequencies are all examples of information elements which could be required. Requester validation is absolutely essential.

TASK: 11B.1.3 PLAN FOR THE EMPLOYMENT OF NGF

CONDITIONS:

The ANGLICO element is in support of tactical operations. These operations involve an amphibious assault and/or operations ashore. The commander has issued planning guidance. An ANGLICO NGF officer is assigned to the element to plan and conduct NGF.

STANDARDS: 11B.1.3.1 - 11B.1.3.27
EVAL: Y; N; NE

.1 ____ Develops NGF support plans based on the commander's planning guidance to ensure the integration of NGF with the landing concept and operations ashore.

.2 ____ Determines target intelligence requirements and submits these requests.

.3 ____ Coordinates with other support planners to analyze the latest target intelligence to determine which targets NGF can effectively engage to achieve the degree of damage required.

.4 ____ Assigns priorities based on the commander's guidance for all types of targets to be engaged.

.5 ____ Coordinates NGF requirements with requirements developed for air support.

.6 ____ Submits overall NGF requirements to the senior Navy planners for consolidation with naval requirements.

.7 ____ Determines pre D day NGF requirements, and prepares a schedule based on established priorities. (KI)

.8 ____ Determines D day requirements, and prepares a schedule based on established priorities. (KI)

.9 ____ Determines the NGF capabilities of the ships assigned; i.e., draft, number of turrets, fire control systems, and ammunition storage capacity.

.10 ____ Coordinates the assignment of missions; i.e., DS or GS, with the naval element commander.

.11 ____ Coordinates the schedule of landing beach preparation fires to include procedures for adjusting the delivery of NGF in relation to the movement of assault craft and the determination of safety limits.

.12 ____ Ensures planned NGF avoids protected areas of civilian population concentrations and are per the law of war.

.13 ____ Coordinates the suppression of enemy air defense (SEAD) fires for planned air strikes.

.14 ____ Prepares a NGF plan to include enclosures for inclusion in the supported unit's operations plan/order.

.15 ____ Prepares an overlay which indicates such items as the zones of action, zones of fire, fire support areas or stations, areas for neutralization fires, and targets designated for destruction.

.16 ____ Integrates the plan for the delivery of NGF with helicopter approach lanes and fixed wing routes into the AOA.

.17 ____ Ensures adequate aerial spotter support is planned and requested.

.18 ____ Determines post D day requirements, and prepares a schedule based on established priorities. (KI)

.19 ____ Modifies the NGF schedules as required following review of the mission.

.20 ____ Plans both close and deep supporting fires.

.21 ____ Coordinates the employment of radar beacons.

.22 ____ Coordinates the employment of fire support coordination teams.

.23 ____ Coordinates the call for fire procedures for the delivery of indirect NGF fires including primary and alternate frequencies and alternate means of communications.

.24 ____ Identifies communications requirements and provides input into the CEOI.

.25 ____ Coordinates procedures for the reporting of target damage per the SOP.

.26 ____ Develops alternate plans.

.27 ____ Prepares a reports control plan.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

The following items are included in the detailed NGF requirements:

PRE D DAY

- Targets to be destroyed or damaged.
- Other fire missions.
- Ammunition by amount and type.
- Number of ships.

D DAY

- Targets for destruction.
- Landing beach preparation and prearranged close and deep supporting fires.
- Ammunition by amount and type.
- Recommended priority of attack of targets in designated zones of fire.
- Assignment by type of direct and general support ships.
- Assignment of spotting aircraft to be provided or scheduled for supporting unit.
- Commander's requirements.
- Zones of fire.

POST D DAY

- Anticipated daily requirements for spotting aircraft.
- Approximate daily ammunition requirements.
- Radio frequencies required.
- Estimated direction of NGF support.

TASK: 11B.1.4 COMMUNICATIONS PLANNING

CONDITIONS:

The ANGLICO element has been given a mission to support elements of a U.S. Army or allied airborne/ground division. The ability to communicate between the supported and supporting units will be affected by distance, terrain, atmospheric conditions, time, and varying communications systems. Concentration on the preplanning requirements will be absolutely required to ensure mission success.

STANDARDS: 11B.1.4.1 - 11B.1.4.10
EVAL: Y; N; NE

.1 ____ Conducts mission analysis and identifies implied communication tasks.

.2 ____ Requests available intelligence/information on enemy, terrain, and weather from available sources; i.e., G-2, ECAC, etc., and different communications systems to be used.

.3 ____ Reviews task organization and command relationships.

.4 ____ Prepares a communications estimate of supportability based on proposed courses of action.

.5 ____ Refines concept of communications support based on commander's guidance.

.6 ____ Reviews communications SOP, contingency plans, lessons learned, etc.

.7 ____ Reviews overall communication readiness.

.8 ____ Employs circuit profile analysis techniques.

.9 ____ Prepares a communications plan that provides for reliability, speed, flexibility, and security as well as provides for communications contingency plans.

.10 ____ Publishes and disseminates the communications plan in a timely manner upon completion of all elements of communications planning.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11B.1.5 INFORMATION EXCHANGE REQUIREMENTS

CONDITIONS:

The ANGLICO element has been given a mission to support elements of a U.S. Army or allied airborne/ground division. The ANGLICO element commander is involved during all stages of communications planning.

STANDARDS: 11B.1.5.1 - 11B.1.5.4
EVAL: Y; N; NE

.1 ____ Verifies command relationships and task organization.

.2 ____ Validates internal and external communications needlines for current and future operations.

.3 ____ Determines estimated volume of traffic to include surge windows.

.4 ____ Submits recommended prioritization of communications requirements.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11B.1.6 CONDUCT COMMUNICATIONS STAFF COORDINATION

CONDITIONS:

The ANGLICO element has been given a mission to support elements of a U.S. Army or allied airborne/ground division. The ANGLICO element commander is involved during all stages of communications planning.

STANDARDS: 11B.1.6.1 - 11B.1.6.9
EVAL: Y; N; NE

.1 ____ Determines internal doctrinal and unique requirements, gains information, provides information to the supported unit, makes recommendations, etc.

.2 ____ Coordinates with the supported command element to receive unique requirements, gain information, provide procedures, make recommendations, etc.

.3 ____ Coordinates with host nation/U.S. Embassy/U.S. Navy communications staff and agencies, as appropriate.

.4 ____ Coordinates with the ACE in the development of the communications portion of the pilots/controllers handbook.

.5 ____ Identifies external (ATF/higher command element/host nation/U.S. Embassy) requirements; i.e., frequencies, telecommunications service requests (TSR's), communications guard shifts, AUTODIN access requirements, satellite access requests, etc.

.6 ____ Requests external support (ATF/higher command element/host nation/U.S. Embassy) for frequencies, TSR's, communications guard shifts, AUTODIN access requirements, and satellite access requests, etc.

.7 ____ Submits frequency requests based on the use of frequency propagation analysis tools (previous experience, ECAC, Advanced Prophet, etc.).

.8 ____ Ensures that the plan for communications/electronic maintenance supports the communications plan.

.9 ____ Requests logistics requirements; e.g., consumables, MHE, POL, etc.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11B.1.7 PLAN COMMUNICATIONS SECURITY

CONDITIONS:

The ANGLICO element has been given a mission to support elements of a U.S. Army or allied airborne/ground division. The ANGLICO element commander is involved during the initial stages of communications planning.

STANDARDS: 11B.1.7.1 - 11B.1.7.8
EVAL: Y; N; NE

.1 ____ Determines transmission security requirements based on command relationships and commander's guidance.

.2 ____ Determines emissions security requirements based on command relationships and commander's guidance.

.3 ____ Determines cryptological security requirements based on command relationships and commander's guidance.

.4 ____ Determines physical security requirements.

.5 ____ Ensures intertheater COMSEC package (ICP) for joint operations is held and meets mission requirements.

.6 ____ Ensures and verifies that subordinates possess the appropriate keying material based on the Operations Order/CEOI.

.7 ____ Coordinates the use of and allocation of COMSEC equipment.

.8 ____ Coordinates the control, acquisition, and distribution of COMSEC materials with the CMS custodian.

TASK: 11B.1.8 INTEROPERABILITY

CONDITIONS:

The ANGLICO element has been given a mission to support elements of a U.S. Army or allied airborne/ground division. The ANGLICO element commander is involved during the initial stages of communications planning.

STANDARDS: 11B.1.8.1 - 11B.1.8.3
EVAL: Y; N; NE

.1 ____ Identifies unique communications requirements; i.e., equipment, format, procedures, etc., based on the specific supported and supporting units.

.2 ____ Determines liaison communication requirements to include equipment.

.3 ____ Identifies unique CMS requirements.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

11B.2 PREPARATION FOR OPERATIONS

TASK: 11B.2.1 PREPARATIONS FOR OPERATIONS

CONDITIONS:

ANGLICO has been tasked to provide support. The particular force requirements have been determined and direct liaison has been established with the supported unit.

STANDARDS: 11B.2.1.1 - 11B.2.1.11
EVAL: Y; N; NE

.1 ____ Conducts a detailed brief on the plan to all key individuals.

.2 ____ Utilizes a terrain model, sketch, aerial photographs, or other visual aids when briefing the plan.

.3 ____ Ensures all personnel understand the plan, and are cognizant of their duties and responsibilities.

.4 ____ Allows an opportunity for questions and comments.

.5 ____ Advises all personnel on rules of engagement.

.6 ____ Provides the FCT with sufficient large scale maps and charts.

.7 ____ ANGLICO SOP contains a checklist to assist team leader/chief in preparations.

.8 ____ Individual equipment is inspected and ready for deployment. (KI)

.9 ____ Team equipment and vehicles are inspected and ready for deployment. (KI)

.10 ____ Equipment and supplies are staged in preparation for movement to embarkation locations.

.11 ____ Marshaling and team movement to port of embarkation (POE) or airport of embarkation (APOE) is conducted per appropriate schedule requirements or SOP.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

PREPARATION OF INDIVIDUAL EQUIPMENT

Preparation of troops includes screening all personnel assigned against current deployability criteria, screening of SRB/OQR, legal screening, medical screening, dental screening, preparation of ID cards/tags, issue of missing/replacement 782 gear, issue of mission specific required equipment, as applicable (i.e., cold weather clothing), and individual items necessary for deployment.

PREPARATION AND INSPECTION OF TEAM EQUIPMENT AND VEHICLES

Inspection of all team equipment and vehicles must be conducted to ensure all ancillary equipment is present. In cases where they will be transported on U.S. Air Force aircraft, this inspection must take into consideration the applicable requirements of FMFM 4-6, Movement of Units in Air Force Aircraft.

TASK: 11B.2.2 COMMUNICATIONS PREPARATION

CONDITIONS:

The ANGLICO element has been tasked to support elements of a U.S. Army or allied airborne/ground division. The commander has completed his initial planning. The communications plan has been completed.

STANDARDS: 11B.2.2.1 - 11B.2.2.4
EVAL: Y; N; NE

.1 ____ Conducts briefings on overall OP/COMM plan, operational schedule, COMSEC plan.

.2 ____ Uses graphic aids, maps, etc., when explaining the plan.

.3 ____ Conducts preoperation checks of equipment by assembling all elements and ensuring proper functioning.

.4 ____ Conducts preparatory operator training on forms, procedures, and security requirements.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11B.2.3 PARTICIPATE IN COMMAND POST EXERCISE

CONDITIONS:

The ANGLICO element has been given a mission to support elements of a U.S. Army or allied airborne/ground division. The supported unit commander is preparing for operations and has scheduled a Command Post Exercise (CPX).

STANDARDS: 11B.2.3.1 - 11B.2.3.12
EVAL: Y; N; NE

.1 ____ Ensures the rehearsal plan tests the supportability of the communications plan while maintaining operational security.

.2 ____ Installs communications based on established priorities.

.3 ____ Establishes communications in a timely manner.

.4 ____ Checks for the compatibility of COMSEC means.

.5 ____ Tests communications terminating in the supported and supporting units control agencies.

.6 ____ Establishes and checks each circuit.

.7 ____ Verifies circuit quality for reliability.

.8 ____ Identifies any interference problems to communications planners.

.9 ____ Verifies COMSEC procedures.

.10 ____ Evaluates radio traffic operator proficiency.

.11 ____ Follows correct message handling procedures.

.12 ____ Demonstrates procedures for handling high priority messages.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

11B.3 FIRE SUPPORT COORDINATION

TASK: 11B.3.1 CONDUCT FIRE SUPPORT COORDINATION

CONDITIONS:

An ANGLICO is supporting tactical operations. Members of ANGLICO are functioning within the FSCC or FSE, coordinating NGF and close air support from USN/USMC aircraft.

STANDARDS: 11B.3.1.1 - 11B.3.1.39
EVAL: Y; N; NE

.1 ____ Establishes reliable communications with FCT elements and other fire support agencies within 30 minutes after arrival on the beach or in the DZ.

.2 ____ Clears requests for fire support based on "silence is consent" or unit policy in less than 60 seconds.

.3 ____ Coordinates the attack of targets in the priority established in the operations order.

.4 ____ Utilizes all the fire support measures in the commander's zone of action.

.5 ____ Becomes involved in the flow of information in the FSCC so that critical information is exchanged in a timely manner.

.6 ____ Displays essential information on status boards, maps, and overlays, and ensures their timely update.

.7 ____ Maintains a detailed plot of friendly positions, civilian population concentrations, activities, particularly the location of lead elements, and places protected by the law of war.

.8 ____ Coordinates the linkup of the fire support means with the appropriate fire support team, FAC, and/or NGF spotter.

.9 ____ Monitors the execution of fire missions and air strikes to ensure the requested support is delivered.

.10 ____ Coordinates with other operation planners to select the most effective fire support means to engage preplanned targets.

.11 ____ Recommends any needed adjustment to the schedule of fires to the FSC based on the advance of maneuver units and any changes to the scheme of maneuver.

.12 ____ Responds quickly to targeting data and immediate fire support requests to coordinate the delivery of fire support on high priority targets.

.13 ____ Resolves fire support conflicts between elements of the landing force direct air support missions and indirect fire missions.

.14 ____ Receives joint tactical air request (JTAR's) in a timely manner, eliminates duplicates, assigns priorities, consolidates, and forwards the requests within the established submission times.

.15 ____ Maintains the status of remaining air sorties allocated, aircraft oncall, and status of all preplanned air mission for the next 24 hours.

.16 ____ Requests additional fire support from the CATF and supporting forces.

.17 ____ Coordinates the movement of direct support ship(s).

.18 ____ Maintains reliable ship to shore radio communications on the NGF spot nets.

.19 ____ Utilizes the DASC to aid in the quick response of aircraft to changes in the tactical situation.

.20 ____ Maintains information on ship's ammunition status and rotation schedule.

.21 ____ Ensures NGF counterfire is available, ready, and oncall.

.22 ____ Cancels missions if they are no longer required; e.g., target has moved, or if previously granted clearance is canceled.

.23 ____ Determines if any temporary fire support coordination measures are required, and recommends cancellation of those no longer required.

.24 ____ Monitors the NGF spot nets, providing clearance on, and when necessary, relaying requests for fire.

.25 ____ Plans fires in support of future operations and contingency plans in coordination with the FSC and G/S-3.

.26 ____ Recommends changes to the fire support coordination line based on changes to the tactical situation.

.27 ____ Maintains a record of targets fired on, BDA assessed, targets not engaged, and informs the FSC.

.28 ____ Monitors the JTAR net for information or clearance, if required, on requests for immediate air support.

.29 ____ Coordinates SEAD fires in support of air strikes.

.30 ____ Maintains an operations journal.

.31 ____ Identifies shortages of any type of ammunition which could affect operations.

.32 ____ Coordinates the issuance of weapons codes to the FCT's.

.33 ____ Coordinates with other liaison personnel located in the FSCC/FSE effectively.

.34 ____ Provides continuous updates on the current situation to the FCT's.

.35 ____ Receives and plots firing data; i.e., location (from/to), time (from/to), and altitude from the firing unit in order to promulgate ACA's.

.36 ____ Maintains an overlay of aircraft control points.

.37 ____ Coordinates ACA's as required in a timely manner.

.38 ____ Utilizes a fire support matrix to manage the execution of the fire support plan.

.39 ____ Demonstrates the ability to coordinate the simultaneous use of different supporting arms by coordinating an air strike and SEAD fires.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

11B.4 IMMEDIATE CLOSE AIR SUPPORT

TASK: 11B.4.1 PLAN AN IMMEDIATE CLOSE AIR SUPPORT STRIKE

CONDITIONS:

ANGLICO is supporting a tactical operation. A suitable target is identified for immediate attack by air. The FCT has decided to mark the target with either direct or indirect fire. The delivery of ordnance can occur at night, during daylight or periods of limited visibility. The JTAR is the standard request format.

The FCT is in possession of a pilot/controller handbook and/or designated frequencies. The threat forces have a mix of AAA and missiles, both short and medium range.

STANDARDS: 11B.4.1.1 - 11B.4.1.12
EVAL: Y; N; NE

.1 ____ Analyzes the target in conjunction with the supported unit to determine its tactical importance, priority of attack, and weapons required to obtain the desired level of damage/destruction.

.2 ____ Determines the method of control based on the type aircraft and ordnance that have been allocated.

.3 ____ Evaluates threat antiair defenses in the target area based on current intelligence from the G/S-2.

.4 ____ Plans ingress and egress routes that provide maximum protection to the attacking aircraft, minimize exposure time, provide safety for ground personnel, and allow pilot time to acquire the target.

.5 ____ Selects initial point and/or pop point.

.6 ____ Coordinates the delivery of a marking round and/or SEAD fires prior to the submission of a JTAR.

.7 ____ Plans illumination means if the attack is to occur at night.

.8 ____ Plans reattack and alternate targets.

.9 ____ Coordinates an ACA, if required.

.10 ____ Prepares and submits a JTAR with all the required information in a timely manner.

.11 ____ Uses covered communications in submitting the JTAR.

.12 ____ Prepares a CAS briefing.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11B.4.2 CONTROL AN IMMEDIATE CLOSE AIR SUPPORT STRIKE

CONDITIONS:

ANGLICO is supporting a tactical operation. Tactical fixed wing aircraft have been requested. The delivery of live ordnance can occur at night, during daylight, or periods of limited visibility. The FCT is collocated or in close proximity to artillery forward observers or tank crewmembers to coordinate marking rounds or SEAD fires. The FCT is in possession of a pilot/controller handbook and/or designated frequencies. The threat forces have a mix of AAA and missiles, both short and medium range.

STANDARDS: 11B.4.2.1 - 11B.4.2.22
EVAL: Y; N; NE

.1 ____ FCT personnel are prepared for the aircraft's arrival and establish communications immediately.

.2 ____ Briefs the pilots using the standard CAS briefing guide.

.3 ____ Uses covered communications with attack aircraft.

.4 ____ Gives the pilots a time to target.

.5 ____ Provides a mark within 300 meters of the target, that the pilots can see, prior to the aircraft reaching the drop point. (KI)

.6 ____ Gives a correction from the mark to the target, if required.

.7 ____ Coordinates SEAD fires if required.

.8 ____ Ensures the aircraft is on the proper run-in heading, pointed at the target, and wings level prior to clearing the aircraft.

.9 ____ Transmits a positive clearance to release ordnance to the aircrew once the aircraft is level; i.e., "cleared hot", if required by Operations Order/ SOP.

.10 ____ Ensures radio transmissions are short, concise, and to the point.

.11 ____ Maintains positive control of the aircraft at all times.

.12 ____ Knows the proper method to abort an attack. (KI)

.13 ____ Transmits a BDA. (KI)

.14 ____ If working two aircraft in a section, transmits a correction to the second aircraft based on the ordnance impact of the first aircraft's ordnance. (KI)

.15 ____ Coordinates effective suppression fires.

.16 ____ Flight achieved 70 percent BDA on target.

.17 ____ Flight achieved 75 percent BDA on target.

.18 ____ Flight achieved 80 percent BDA on target.

.19 ____ Flight achieved 85 percent BDA on target.

.20 ____ Flight achieved 90 percent BDA on target.

.21 ____ Flight achieved 95 percent BDA on target.

.22 ____ Flight achieved 100 percent BDA on target.

EVALUATOR INSTRUCTION:

A suitable range/training area capable of accepting live ordnance is required. Strict adherence to range safety regulations is mandatory. The attack aircraft can utilize a low dive, lateral toss, dive toss, high dive, or loft delivery depending on the threat, and local range regulations.

GROUND ATTACK SCORING CRITERIA

Bombs*

Threat	Delivery	BDA vs CEP (Meters)			Target
		BDA	70%	85% 100%	
		CEP	50	25 15	
Low	Low or high dive				Raked or live range
Medium	Any dive	60	35	20	
High	Any dive	90	55	25	
Any threat	Loft	500	300	200	
		Rockets or Guns			
All threats as required		CEP	40	20 10	Raked or live range

* Evaluator will interpolate CEP's and round off to the nearest 5 percent increment. Effectiveness of the ordnance used will be presumed as the mission is intended to evaluate control capabilities.

KEY INDICATORS:

MARK ON TARGET

The air controller will mark the target at the appropriate time (20 to 30 seconds prior to TTT or TOT to aid in acquisition of the target by the pilot). The FAC must know the location of CP's and IP's. The target may be marked by artillery, mortars, NGF, tanks, or other methods.

METHODS TO ABORT

Attack aircraft will abort when:

"Abort! Abort! Abort!" is transmitted.

"Stop! Stop! Stop!" (NATO agreed term) is transmitted.

Silence after arrival at the IP and no clearance to drop is received. (Local SOP will mandate the use of this method.)

AIRSPACE COORDINATION AREA (ACA)

An ACA may be imposed as a safety measure for the protection of aircraft from surface delivered fires. A formal ACA establishes a three dimensional area that includes length, depth, and altitude. The ACA should be established only when the risk to friendly aircraft is sufficiently great to justify the attendant loss of surface delivered fire support. The specific information necessary to establish an ACA includes minimum and maximum altitudes, length by two coordinate points, width on either side of a centerline, and the effective date time group for commencement and termination. Artillery, NGF, or mortar support can continue over, under, or to the sides of the ACA while it is in effect. Coordination at the lowest level FSCC will facilitate the minimum time actually required for the ACA to remain in effect.

WORKING TWO AIRCRAFT

In a sophisticated environment when using low level maneuvers, target information will be transmitted using geographical direction to the target; i.e., from your hit, target is southwest, 200 meters.

RELEASE CONDITIONS

It must be recognized that EMCON, MINCOM, or enemy jamming may make it difficult to exchange information between the FAC and aircrew in a high threat environment. This makes it imperative that the strike be preplanned to the maximum extent possible. Ground commanders must be prepared to accept the possibility that the flight will be unable to initiate or receive radio communications after commencing low level ingress. The pilot will deliver the ordnance as long as he is reasonably assured that the proper target is in sight, unless receiving a positive abort signal from the FAC. In a jamming environment, a red flare or star cluster could be used as an alternative means to signify an abort. If the situation dictates a positive FAC clearance prior to drop, it must be prearranged as exception to normal procedures in a high threat environment.

BOMB DAMAGE ASSESSMENT

While BDA or strike assessment information can be easily transmitted in a permissive environment, it is doubtful if time and circumstances will permit it in a sophisticated scenario; therefore this information would be passed via the FSCC's to the DASC at the earliest opportunity. If results are unsatisfactory, another request for immediate air support should be submitted.

TASK: 11B.4.3 PLAN AN IMMEDIATE RABFAC MISSION

CONDITIONS:

ANGLICO is supporting a tactical operation. Tactical fixed wing aircraft, some of which are RABFAC capable, are in support. The delivery of ordnance can occur at night, during daylight, or periods of limited visibility. The FCT has a RABFAC beacon. The FCT is in possession of a pilot/controller handbook and/or designated communications frequencies. The threat forces have a mix of AAA and missiles, both short and medium range.

STANDARDS: 11B.4.3.1 - 11B.4.3.13
EVAL: Y; N; NE

.1 ____ Analyzes the target in conjunction with the supported unit to determine its tactical importance, priority of attack, and weapons required to obtain the desired level of damage.

.2 ____ Determines the method of control and equipment configuration based on the type aircraft and ordnance that has been allocated.

.3 ____ Evaluates threat antiair defenses in the target area based on current intelligence from the G/S-2.

.4 ____ Plans ingress and egress routes that provide maximum protection to attack aircraft, minimizes exposure time, provides safety for ground personnel, and minimizes terrain masking of the beacon.

.5 ____ Ensures line of sight (LOS) between aircraft and beacon when assigning attack heading to optimize stand-off distance and increase the element of surprise. (KI)

.6 ____ Determines target coverage desired and designates an attack heading which achieves target coverage and/or requests the aircraft pilot to stagger the ordnance release.

.7 ____ Designates a run-in heading that is compatible with the safety of friendly forces and meets minimum beacon to target line safety standards.

.8 ____ Coordinates the delivery of SEAD fires prior to the submission of a JTAR, if required.

.9 ____ Plans reattack and alternate targets.

.10 ____ Coordinates an ACA, if required.

.11 ____ Computes the required data and submits a JTAR.

.12 ____ Uses covered communications in submitting the JTAR.

. ____ Prepares a CAS briefing.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

RUN-IN HEADING

Due to the beacon position relative to the aircraft, the run-in heading selected for a visual air strike on a certain target may be incompatible with the run-in heading required to run a RABFAC beacon strike on the same target. On a modern battlefield, CAS may have to be performed in any manner it can be done, to include perpendicular to friendlies, or any other violation of peacetime safety procedures.

Of prime importance in determining a run-in heading during training missions is safety of the friendly forces. It is possible for the run-in heading to be such that the beacon disappears from the bombadier/navigator's radar scope prior to bomb release, making it impossible for the bombadier/navigator to correct cursor positioning up to the point of release. However this does not preclude the release of ordnance. It is not necessary for the beacon to be on the scope at weapon release. It does, however, make the release more accurate. In order for the aircraft to see the beacon, it must be within 45 degrees of the nose of the aircraft until release. Actual release of most weapons used in RABFAC missions normally occurs, depending on aircraft altitude and airspeed, approximately 2,000 to 3,000 meters prior to the target.

TASK: 11B.4.4 CONDUCT A RABFAC MISSION

CONDITIONS:

ANGLICO is supporting a tactical operation. Tactical fixed wing aircraft have been tasked to conduct a RABFAC mission. The mission can be conducted at night, during daylight, or periods of limited visibility. The FCT has a RABFAC beacon. The FCT is in possession of a pilot/controller handbook and/or designated frequencies and codes. Threat forces have a mix of AAA and missiles, both short and medium range.

STANDARDS: 11B.4.4.1 - 11B.4.4.23
EVAL: Y; N; NE

.1 ____ Sets up the RABFAC properly to include setting the code (and frequency band if utilizing the AN/PPN-19.)

.2 ____ Orients the directional antenna properly to limit electronic emissions to the desired sector of radiation and increase range. (Omni directional antenna can be used with the AN/PPN-19.)

.3 ____ Recognizes jamming or "over interrogation" when utilizing the AN/PPN-19 and takes appropriate AGC actions.

.4 ____ FCT personnel are prepared for the aircraft's arrival and establish communications immediately.

.5 ____ Transmits the target brief to the aircraft and receives an acknowledgment within 2 minutes.

.6 ____ Gives a time hack.

.7 ____ Passes the proper information to the aircraft for the grid coordinate method (when used).

.8 ____ Demonstrates the ability to assign new targets to the aircraft while in-flight.

.9 ____ Ensures that the aircraft properly identifies the beacon on each run. (KI)

.10 ____ Ensures the aircraft meets the proper criteria for ordnance release.

.11 ____ Knows the location of all friendly ground units.

.12 ____ Uses covered communication throughout the mission.

.13 ____ Provides corrections based on beacon to target in the range/bearing method of employment. (KI)

.14 ____ Knows the proper method to abort an attack. (KI)

.15 ____ Coordinates effective suppressive fires.

.16 ____ Transmits a BDA.

.17 ____ Flight achieved 70 percent BDA on target.

.18 ____ Flight achieved 75 percent BDA on target.

.19 ____ Flight achieved 80 percent BDA on target.

.20 ____ Flight achieved 85 percent BDA on target.

.21 ____ Flight achieved 90 percent BDA on target.

.22 ____ Flight achieved 95 percent BDA on target.

.23 ____ Flight achieved 100 percent BDA on target.

EVALUATOR INSTRUCTIONS:

GROUND ATTACK SCORING CRITERIA

Bombs*

Threat	Delivery	BDA vs CEP (Meters)	Target
Any	Low or high level	BDA 70% 85% 100% CEP 50 25 15	Raked or live

* Evaluator will interpolate CEP's and round off to the nearest 5 percent increment. Effectiveness of the ordnance will be presumed as the mission is intended to evaluate control capabilities.

KEY INDICATORS:

CLEARANCE TO DROP

A mandatory report by the pilot to the FAC is often required in the training environment at 6 miles stating that the aimpoint is selected and requesting clearance to drop. In addition, the crew must request and receive an "IDENT" code change of the beacon by the FAC during each run. The FAC should not state the code he is switching to, and the IDENT must be positively confirmed by the aircrew.

RABFAC CORRECTIONS

Corrections are similar to those used in artillery spotting but use the "beacon to target line" in the range and bearing method. The primary difference is that the corrections are given in degrees, and in meters of range.

Left or right corrections with reference to the beacon to target line are given in degrees and minutes of azimuth. Long or short corrections with reference to the beacon to target line are given in addition or subtraction of meters.

In a high threat environment only one pass will be possible. If a correction is needed to place ordnance on the target, a new bearing and distance must be computed by the FAC based on previous aircraft's impacts, and passed to the next aircraft before it enters the target/threat area.

Azimuth corrections are most easily made utilizing binoculars with a grid reticule (17.8 mils of azimuth deflection equals 1 degree of correction).

If binoculars or compasses are not available, the following formula may be used. For each 1,000 feet in range, 1 degree correction will move the bomb 17.78 feet. Corrections are given by the FAC in the following format:

"Left 2 degrees 30 minutes, add 200 meters".

or

"Right 1 degree, subtract 120 meters".

ABORT METHOD

There are four ways to abort an aircraft attack run:

Silence - Failure to clear the aircraft hot, or to drop constitutes an abort. However, in actual conflicts it is conceivable that an aircraft could be cleared to attack a target unless specifically directed to abort. In all practice missions on a training range, for safety reasons, silence means abort.

"Abort, abort, abort" - Standard U.S. terminology to abort an aircraft's attack run.

"Stop, stop, stop" - Standard NATO terminology to abort an aircraft's attack run.

Code word - In future conflicts where communication may be difficult a code word may be designated for the abort of an aircraft's attack run, or pyrotechnics could be used (i.e., prearranged red cluster, et al) if communications are totally impossible.

TASK: 11B.4.5 PLAN A LASER GUIDED CLOSE AIR SUPPORT STRIKE

CONDITIONS:

ANGLICO is supporting a tactical operation. A suitable target is identified for an immediate attack by air. The FCT is equipped with a laser designator and has decided to engage the target with a guided bomb. The delivery of live ordnance can occur at night, during daylight, or in periods of limited visibility. The FCT is in possession of a pilot/controller handbook and/or designated communication frequencies. The threat forces have a mix of AAA and missiles, both short and medium range.

STANDARDS: 11B.4.5.1 - 11B.4.5.21
EVAL: Y; N; NE

.1 ____ Analyzes the target in conjunction with the supported unit to determine its tactical importance, priority of attack, and weapons required to obtain the desired level of damage.

.2 ____ Determines the method of control based on the type aircraft and ordnance that has been allocated.

.3 ____ Evaluates threat antiair defenses in the target area based on current intelligence information received from the G/S-2.

.4 ____ Selects overwatch positions or other positions which provide for maximum visibility, line of sight (LOS), cover and concealment, and communications.

.5 ____ Demonstrates the ability to determine target range, target elevation, and azimuth to the target using the MULE.

.6 ____ Considers laser safety requirements. (KI)

.7 ____ Determines whether the laser designator is within range to provide sufficient reflected laser energy to operate.

.8 ____ Coordinates the delivery of SEAD fires prior to the submission of a JTAR, if required.

.9 ____ Coordinates an ACA, if required.

.10 ____ Selects a visible reference point to help the pilot point the seeker.

.11 ____ Ensures that minimum cloud ceiling based on types of weapons, delivery mode, aircraft type, and time of weapons flight exists.

.12 ____ Selects a run-in heading that allows for lockon and weapons delivery on the first pass.

.13 ____ Adjusts the attack heading, especially at sunrise or sundown, to avoid solar saturation for targets located just above the horizon.

.14 ____ Selects an angle between the laser guided weapon's flight and the laser to target that is as close as possible to being parallel.

.15 ____ Coordinates communications procedures to be used with the aircraft for target designation and the code setting for the designator and seeker.

.16 ____ Considers the simultaneous attack or the spacing of attack aircraft on a target to alleviate problems associated with smoke, dust, and debris.

.17 ____ Demonstrates an understanding of the weapons delivery envelope for the requested laser weapons.

.18 ____ Plans reattack and alternate targets.

.19 ____ Plans the use of the laser designator to aid in the delivery of nonlaser guided weapons.

.20 ____ Uses covered communications in submitting the JTAR.

.21 ____ Prepares a CAS briefing guide.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

LASER SAFETY

When using laser designators in a crowded battlefield environment where areas occupied by friendly and enemy troops are not well defined, the potential danger to friendly personnel of eye damage must be considered in order to develop and define proper operating procedures.

Normally, the only part of the human anatomy affected by the laser is the eye. Light from a laser is more damaging than ordinary light sources. The visible beam is highly directional, intense, radiation which can cause serious harm to the eyes.

The highly directional laser beam can be refracted by the cornea into the eye lens and transmitted through the vitreous humor onto the retina where it can cause damage ranging from unnoticeable tiny spots to complete blindness. The principle dangers to the eye result from looking directly back at the laser and from reflections from specular (mirror-like) reflectors. Because the laser beam spreads so little, the danger zone for direct beam viewing extends over an extremely long

distance. For example, the danger zone for a single laser designator is defined to be the area within the field of view of the telescopic sight, extending out to the minimum safe range of 11 kilometers.

Specular reflections from flat objects, such as flat mirrors, window glass, automobile reflectors on tail lights, and certain optical systems, do not spread the beam after reflection, and cause optical damage. The minimum safe range for such reflection is the same as for direct beam viewing. In addition, since the reflected beam may be in any direction, the danger zone is essentially a circle around the reflector. Specular reflections from surfaces, such as hubcaps and bumpers, are spread out, thereby reducing the danger and resulting in smaller minimum safe range. The minimum safe range is increased appreciably for anyone viewing a target area through binoculars and similar optical devices.

During laser designator training, personnel in the vicinity of MULE/LLTD are required to wear safety glasses.

All laser training operations must be under the close supervision of qualified laser safety personnel.

Each laser range will have special range regulations for laser use that require strict compliance for safety.

Never try to dismantle laser modules.

Immediately cease laser generation or move the laser if any person comes into the optical range of the beam.

Do not apply laser beam to highly reflective targets such as glass or chrome.

When handling the laser, always assume it is powered until actual determination can be made.

Never point the laser at anyone and ensure that the muzzle is always pointed downrange.

Ensure the laser control switch is on safe when not in actual operation. Disconnect the power source when not in use for extended periods.

Keep nearby personnel behind the "muzzle."

TASK: 11B.4.6 CONTROL A LASER GUIDED CLOSE AIR SUPPORT STRIKE

CONDITIONS:

ANGLICO is supporting a tactical operation. A suitable target has been designated for an immediate air strike. The FCT is equipped with a laser designator and has decided to either engage the target with a laser guided bomb or pinpoint the target's location and designate it for attack by aircraft equipped with laser tracking equipment. A JTAR has been submitted. The delivery of live ordnance can occur at night, during daylight, or periods of limited visibility.

STANDARDS: 11B.4.6.1 - 11B.4.6.29
EVAL: Y; N; NE

.1 ____ Demonstrates the ability to determine target range, target elevation, and azimuth to the target using the laser designator.

.2 ____ Ensures LOS exists between the designator and the target, as well as between the target and the ingress route of the aircraft.

.3 ____ Chooses a position which is unobscured by smoke, dust, or chemical particles as well as free from obstructions such as shrubs, trees, etc.

.4 ____ Verifies minimum weather requirements exist for the type aircraft and ordnance.

.5 ____ Ensures the laser designator is positioned within the optimum range for the seeker to acquire the target.

.6 ____ FCT personnel are prepared for the aircraft's arrival and establish communications immediately.

.7 ____ Briefs the pilot using the standard 9 line CAS briefing guide.

.8 ____ Uses covered communications with the attack aircraft.

.9 ____ Gives the pilot a time to target.

.10 ____ Utilizes a night sight for target identification and engagement for night and periods of low visibility engagements.

.11 ____ Uses the code set in the bomb.

.12 ____ Aims the laser designator at the top third of the target in an attempt to optimize the amount of reflected energy.

.13 ____ Uses offset laser designation techniques to enhance target acquisition.

.14 ____ Maintains positive air to ground communications throughout the mission.

.15 ____ Uses correct and precise communications when designating the target.

.16 ____ Designates the target at the proper time.

.17 ____ Demonstrates the ability to designate moving targets.

.18 ____ Ensures the aircraft is on the proper run-in heading, pointed at the target, and wings level prior to clearing the aircraft.

.19 ____ Transmits a positive clearance to release ordnance to the aircraft, i.e., "cleared hot".

.20 ____ Knows the proper method to abort an attack.

.21 ____ Coordinates effective suppressive fires.

.22 ____ Transmits a BDA.

.23 ____ Flight achieved 70 percent BDA on target.

.24 ____ Flight achieved 75 percent BDA on target.

.25 ____ Flight achieved 80 percent BDA on target.

.26 ____ Flight achieved 85 percent BDA on target.

.27 ____ Flight achieved 90 percent BDA on target.

.28 ____ Flight achieved 95 percent BDA on target.

.29 ____ Flight achieved 100 percent BDA on target.

EVALUATOR INSTRUCTIONS:

Timing requirements should take into account:

- Weapons requiring lockon before launch (LOBL).
- Weapons allowing lockon after launch (LOAL).
- Lofted weapons.
- Direct fire weapons.

Ground attack scoring criteria is as follows:

BOMBS*

THREAT	DELIVERY	BDA vs CEP (Meters)			TARGET
		BDA	70%	85% 100%	
Low	Low or high dive	CEP	50	25 15	Raked or live
Medium	Any dive		60	35 20	"
High	Any dive		90	55 25	"
Any	Loft		500	300 200	"

* Evaluator will interpolate CEP's and round off to the nearest 5 percent increment. Effectiveness of the ordnance will be presumed as the mission is intended to evaluate control capabilities.

KEY INDICATORS: None.

11B.5 SHORE FIRE CONTROL

TASK: 11B.5.1 LOCATE OBSERVATION POSITION

CONDITIONS:

Each FCT spotter is required to locate his position at six designated points along a terrain walk of 6,000 meters or more. He is provided a lensatic or M2 compass and a standard 1:50,000 military map.

STANDARD: 11B.5.1.1 - 11B.5.1.2
EVAL: Y; N; NE

.1 ____ Time: Spotter gives own location within 30 seconds after being told to do so by the evaluator.

.2 ____ Accuracy: Spotter gives a six-digit grid coordinate which is within 200 meters of actual location.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11B.5.2 LOCATE TARGETS BY ALL THREE METHODS

CONDITIONS:

Given a lensatic or M2 compass, binoculars, and a standard 1:50,000 military map in any terrain, spotters may chose six-digit grid, polar plot, or shift from a known location method to locate targets. Spotters should be given time to make a terrain map study to orient themselves. They should not be given OP grid or any known directions. Targets should be between 1000 and 5000 meters from the OP location.

STANDARDS: 11B.5.2.1 - 11B.5.2.2
EVAL: Y; N; NE

.1 ____ Time: Spotter gives target location within 50 seconds of time the target is identified to the spotter by the evaluator.

.2 ____ Accuracy: Target location is given within 200 meters of actual location.

Target location is expressed to (as appropriate):

100 meters - Coordinates

10 mils - Polar Plot

10 meters - Lateral Shift

5 meters - Vertical Shift

100 meters - Distance

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11B.5.3 SPOTTERS CALL FOR FIRE

CONDITIONS:

Given a lensatic or M2 compass, binoculars, observer fan, and a standard 1:50,000 standard military map in any terrain, spotters will locate a target by six-digit grid coordinates. Targets should be between 1000 and 5000 meters from OP.

STANDARDS: 11B.5.3.1 - 11B.5.3.4
EVAL: Y; N; NE

.1 ____ Time: Transmits, upon identification of target, a complete call for fire within 60 seconds; sends subsequent corrections within 15 seconds of round impact.

.2 ____ Accuracy: Grid location error is no greater than 200 meters.

.3 ____ Fire for effect (FFE) is initiated when a 200 meter bracket is split for an area target, or a 100 meter bracket for a point target.

.4 ____ Correct observed fire and communications procedures are used. (KI)

EVALUATOR INSTRUCTIONS:

Evaluator causes the spotters to be rotated during firing drills until all spotters have demonstrated their level of proficiency.

KEY INDICATORS:

STANDARD NGF CALL FOR FIRE

Sample Format

CALL FOR FIRE

A. Spotter Identification _____

B. Warning Order _____

-- BREAK FOR READBACK BY SHIP

C. Target Location _____

D. Target Description _____

E. Method of Engagement _____

1. Danger Close

2. Trajectory

3. Ammunition

F. Method of Fire and Control _____

1. Method of control

2. Special techniques

EXPLANATION OF STANDARD CALL FOR FIRE

A call for fire is a concise message sent by the spotter to the ship, containing all the information needed to attack the target. The spotter employs standardized terminology in the call for fire.

A. Spotter Identification. This element tells the ship who is calling. The spotter and the ship will use daily changing call signs (i.e., "D4C, this is A3G").

B. Warning Order. The warning order informs the ship that a call for fire is being sent. It consists of the words "FIRE MISSION and (TARGET NUMBER)".

- Break for Readback by Ship. Immediately after the warning order is sent, the spotter will transmit "OVER". This provides an opportunity to ensure that the ship has received the firing alert and is prepared to receive the remainder of the call for fire. After the ship readsback the firing alert information transmitted, the spotter continues with the remaining elements of the call for fire.

C. Target Location. This element provides the information needed by the ship to plot the target and determine firing data. The sequence in which location data is sent alerts the ship to which of the three methods of location are being used.

1. Polar Plot Method. Spotter transmits the following data in the sequence shown:

"Direction _____" (to nearest 10 mils or 1 degree)

"Distance _____" (to nearest 100 meters)

"Up (or Down) _____ " (to nearest 5 meters)

2. Shift from Known Point Method. Spotter transmits following sequence of data:

"From (identify point)"

"Direction _____" (to the target)

"Left (or right) _____" (to the nearest 100 meters)

"Add (or drop) _____" (to the nearest 100 meters)

"Up (or down) _____" (to the nearest 5 meters)

3. Grid Method. Spotter transmits following sequence of data:

"Grid ____" (6 place, nearest 100 meters)

"Altitude _____" (Use map contour intervals; if not meters, include in the message (i.e., "Altitude 35 feet").

"Direction _____" (to the target)

D. Target Description. This element provides a brief description of the target.

1. Type of Target. What the target is and what the target is doing (Troops digging in, trucks in convoy, tanks assembled in tree line).

2. Size. The number of elements in the target, or the physical dimensions (5 trucks, 100 troops, 400 x 400 meters).

3. Degree of Protection. Does the target have protection? (In the open, in foxholes, in bunkers with overhead cover).

E. Method of Engagement. This element provides detailed information on the method of attacking the target and may include:

1. Danger Close. The term "DANGER CLOSE" will be included in the method of engagement when the target is within 750 meters of any friendly troops when engaging with 5" guns. Danger close with 16" guns is 1000 meters. Danger close for 16" IQM is 2000 meters. "Danger Close" is followed by the cardinal direction to the friendly troops and by the distance between the nearest troops and target (i.e., "Danger Close, SW, 500 meters).

2. Trajectory. Due to the high velocity and flat trajectory of NGF intervening terrain may prevent engagement of targets in defilade. The spotter can raise the trajectory, thereby increasing the angle of fall by requesting "REDUCED CHARGE". If this subelement is omitted the ship will fire full charge.

3. Ammunition. If the type of ammunition is not specified in the call for fire, HE with fuze quick will be fired during the adjustment and fire for effect phases of the fire mission. When a different type of ammunition or fuze action is required, the spotter must specify what is desired:

Projectile. The spotter may specify the following other than HE projectile, "illumination", "Whiskey Papa (White phosphorus), or "Armor Piercing".

Fuze. Most missions are fired with fuze quick during the adjustment phase. The spotter may specify "Fuze time, Fuze delay, or Fuze variable time in effect".

F. Method of Fire and Control. This element includes special requirements the spotter desires for attacking the target and the means he will use to control the fire mission.

1. Method of Fire. The spotter specifies the number of guns to be used in adjustment and in the fire for effect. If the number of guns for effect is not specified, it is understood to be the same number as used in adjustment. For all types of illuminating missions, it is understood that one gun will be used and this data is omitted from the call for fire.

2. Any of the various special techniques which the spotter may desire to utilize to effectively attack the target, would be addressed in this element. They are:

Continuous Illumination. Ordered by the spotter when it is essential to provide constant light on a target.

Coordinated Illumination. The technique used to fire illumination and high explosive projectiles onto the same target.

Interval. Command to sustain fire for effect over a period of time. The interval ordered is the time in seconds between salvos (i.e., "Two guns, 10 salvos, interval, 30 seconds").

Sustained Fire. If there is a requirement for continuous fire for effect over a prolonged period, the spotter may specify sustained fire. The n command should include the number of rounds and the period of time they are required to be fired (i.e., "Sustained Fire, 20 rounds, 5 minutes").

Time on Target TOT. If the spotter requires the rounds in fire for effect to commence impact on the target at a specific time, he may command TOT (i.e., "TOT, at 0715" or "TOT 15 minutes from now").

TASK: 11B.5.4 SPOTTER CONTROLS AN HE DESTRUCTION OR AREA NEUTRALIZATION

CONDITIONS:

A NGF support ship is available. The spotter has transmitted a call for fire, and the ship has transmitted "READY" to fire the mission.

STANDARDS: 11B.5.4.1 - 11B.5.4.9
EVAL: Y; N; NE

.1 ____ Maintains positive communications with the fire support ship.

.2 ____ Commands "Fire" and observes the fall of shot.

.3 ____ Transmits subsequent corrections within 15 seconds of round impact.

.4 ____ Spots are made in the correct sequence. (KI)

.5 ____ Spots are made within required accuracy.

- Height of Burst (HOB) to the nearest 1 mil
- Range over or short
- Deviation to the nearest 5 mils

.6 ____ Spotter takes positive action when round is "LOST". (KI)

.7 ____ FFE is requested when spotter splits the appropriate range bracket, or when effect is observed on the target.

.8 ____ Spotter exhibits knowledge of correct usage for special firing orders/reports. (KI)

.9 ____ Spotter takes appropriate action necessary to complete the fire mission. (KI)

EVALUATOR INSTRUCTIONS:

Evaluator causes the spotters to be rotated during firing drills until all spotters have demonstrated their level of proficiency. Spotter uses one gun in adjustment.

KEY INDICATORS:

SPOTTING SEQUENCE

A. Spotting sequence is HOB (when using fuze time), range, and deviation.

B. HOB is the number of mils the burst was above the target. There are three HOB spots. They are:

1. Air. Round bursts in the air and is spotted as "air" and the number of mils above the target (i.e., "air, 15 mils").

2. Graze. Round bursts on impact.

3. Mixed. A group of rounds, some of which burst in the air and some on impact. If the preponderance are air bursts, the spot is "mixed air", and if the preponderance are graze, the spot is "mixed graze".

C. Range is whether the burst occurred beyond or short of the target. Positive range spots are needed in order to make a proper range adjustment. Normally, a burst on or near the OT line provides a definite range spot. Range spots are:

1. Over. A burst that appears beyond the target.

2. Short. A burst that appears to be between the observer and the target.

3. Range Correct. No correction required.

4. Doubtful. A round which falls so far right or left of the OT line that it can't be spotted as over or short.

D. Deviation is the distance and direction the round burst away from the OT line. The spotter will normally use his binoculars to measure this distance in mils.

ACTION TAKEN ON "LOST" SPOTS

When the spotter did not observe the burst, the spot is "LOST". Under many conditions a rough spot may still be possible if the spotter hears but does not see the burst. For instance, the only possible place where the burst could occur and not be visible to the spotter is in a ravine beyond the target.

When a round is lost, the spotter must take positive action. The following corrective procedures may be appropriate:

A. Quickly check the target location provided in the call for fire.

B. Request the ship to check their firing data. "Lost, Check Solution".

C. "Repeat", in other words fire another round with the same gunnery data.

D. Request a WP round or a 100 meter HE air burst for the next round.

E. Make a bold shift. The observer must be sure the shift will not endanger friendly troops.

F. End the mission and initiate a new call for fire.

FIRE FOR EFFECT

The spotter requests fire for effect on an area target, upon splitting a 200 meter bracket. Fire for effect will be transmitted when splitting a 100 meter bracket for a point target. Fire for effect is called when effect on the target is observed, whether or not the correct size bracket has been split. When fuze time is being used, fire for effect is not called until the HOB is correct or until a correction can be expected to result in the correct HOB.

SPECIAL FIRING ORDERS/REPORTS

The spotter should know and be able to answer questions relating to the following special firing orders/reports:

A. Check Firing. The spotter, NGLO, or ship may command "check firing" at any time. This is a command to temporarily stop firing, usually for safety reasons. Only the originator can rescind this order and it is done by the transmission of the command "Cancel Check Firing".

B. Spreading Fire. A notice from the spotter to the ship that fire for effect will be distributed over a large area by spotting corrections. This is normally sent after the initial fire for effect on an area target as part of the subsequent corrections (i.e., "Spreading Fire, Right 100 Add 200, Repeat").

C. Trend (with Indication of Direction). Is sent to the ship if the spotter notices the rounds drifting away for the target (i.e., "Trend, Southwest 100 per salvo").

D. Check Solution. Is transmitted if the spotter believes that there may be an error in the ship's computer and desires the ship to check it's settings.

E. Neglect. Is sent by the ship to report that the last salvo was fired with incorrect data. The ship will correct the settings and refire without request.

F. Delay (Estimated Time in Minutes). Indicates that the ship will not be ready to fire until the given time has elapsed.

ACTIONS TO TERMINATE MISSION

The spotter will observe the results of the fire for effect and then will take the appropriate action necessary to complete the mission.

A. If the fire was accurate and sufficient, the spotter announces "End of Mission" and reports the effect observed.

B. If the rounds were on target but more fire is needed, the spotter will transmit "Repeat".

C. If the location of the fire needs to be moved to achieve satisfactory results, the spotter will transmit the appropriate corrections and "Repeat" (i.e., "Right 100, Repeat"). NOTE: If the spotter expects to move the FFE several times, he should precede the first corrected fire for effect repeat with "Spreading Fire".

D. If the spotter desires the target to be plotted for future use, he announces "Record as Target" prior to announcing end of mission.

TASK: 11B.5.5 SPOTTER CONTROLS A COORDINATED ILLUMINATION MISSION

CONDITIONS:

A NGF support ship available. The spotter has transmitted a call for fire for a coordinated illumination mission and the ship has transmitted "READY" to fire mission.

STANDARDS: 11B.5.5.1 - 11B.5.5.7
EVAL: Y; N; NE

.1 ____ Maintains positive communications with the fire support ship.

.2 ____ Commands "Fire" and observes the position of the illumination round in relation to the target.

.3 ____ Spotter makes proper illumination corrections within 15 seconds of round burst. (KI)

.4 ____ Spotter uses correct "Mark" procedures. (KI)

.5 ____ Spotter uses correct HE procedures. (KI)

.6 ____ FFE is requested when adjustment phase of not more than three adjusting rounds is completed.

.7 ____ Correct observed fire and communications procedures are used. (KI)

EVALUATOR INSTRUCTIONS:

Evaluator causes the spotters to be rotated during firing drills until all spotters have demonstrated their level of proficiency in controlling a coordinated illumination fire mission. Spotter uses one gun in adjustment.

KEY INDICATORS:

ILLUMINATION CORRECTIONS

Because of the large area illuminated, small corrections are not necessary. The minimum deviation or range change should be 200 meters and HOB 50 meters. The spotter will order corrections in 100 meters increments and HOB in 50 meter increments.

MARK PROCEDURES

At the conclusion of the illumination adjustment the spotter transmits, "Repeat, Mark Will Be Given, Over". The ship fires another illumination salvo; as the flare approaches the point of best illumination, the spotter will transmit "Standby".

This alerts the ship for the next transmission. When the flare is at the point of best illumination the spotter commands "Mark Over".

HE PROCEDURES

Immediately after receiving the readback of "Mark, Out" from the ship, the spotter will transmit subsequent corrections to commence HE adjustment. They include the following:

"Coordinated Illumination"

"HE" (normally HE, fuze quick for adjustment)

"One Gun"

"Spotter Adjust"

"Over"

SUBSEQUENT CORRECTIONS

The ship will transmit a prefiring report to the spotter providing "Gun Target Line" and "Ready". The spotter must order "Fire" for the first salvo. The ship will announce "Shot" when the illumination salvo is fired and "Splash" for the HE projectile. Each adjustment must be preceded with type of round being adjusted, (i.e., "Illumination, Right 200, HE, Drop 400, Over")

TASK: 11B.5.6 SETTING UP THE NGF BEACON

CONDITIONS:

ANGLICO is in support of tactical operations. Radar beacons have been positioned ashore to provide fire support ships with electronic aides to navigation.

STANDARDS: 11B.5.6.1 - 11B.5.6.9
EVAL: Y; N; NE

.1 ____ Completes coordination with NGF ships to ensure stable communications.

.2 ____ Location selected for mounting the beacon is accurately determined. (KI)

.3 ____ In selecting the location for mounting the beacon, large metal surfaces or objects are avoided. (KI)

.4 ____ When a metal surface cannot be avoided, proper insulation spacer material is used. (KI)

.5 ____ In selecting the location for mounting the AN/UPN-32 beacon, magnetic devices are avoided. (KI)

.6 ____ Proper support is used for mounting beacon at the determined site.

.7 ____ The beacon is placed where obstacles will not interfere with its LOS transmission characteristics. (KI)

.8 ____ The beacon is placed with consideration to its effective transmission range.

.9 ____ The beacon is placed in an upright position. (KI)

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

ACCURATELY DETERMINED LOCATION

When employing the radar beacon as an aid to a NGF support ship, it is critical that the location where the beacon is to be mounted is accurately determined. This may be done by determining the location from a map, or in connection with the

services of a survey team from an artillery unit. Predetermined locations are shown in the Radar Beacon Plan.

LARGE METAL OBJECTS ARE AVOIDED

If possible, avoid mounting the beacon on such locations as the side of a metal building, a cyclone (wire) fence, or large metal pipes generally used in the construction of water towers. Large metal objects near the beacon tend to reflect the beacon's signal.

USE OF INSULATING SPACER MATERIAL

If mounting on a metallic surface cannot be avoided, a nonmetallic insulating spacer must be used between the beacon mounting bracket and the metal surface when utilizing the AN/UPN-32. Any nonmetallic material is suitable for this purpose, however, the spacer must be at least 2 inches in thickness. This required insulation thickness is necessary to avoid damaging the magnetron.

MAGNETIC DEVICES AVOIDED

Before mounting the beacon, special consideration must be given to the proximity of compasses and other magnetic sensing devices or devices which generate a magnetic field in the course of their operation. Keep the AN/UPN-32 beacon a minimum of 7 feet from any magnetic devices. This is necessary to prevent damage to the transmitter in the beacon.

MUST HAVE LOS

The beacon's transmissions are LOS only. Any obstructions between the beacon and the ship will obstruct, or interfere with transmitted signals. The antenna must project above surrounding objects. This often necessitates placing the beacon on prominent terrain or high ground where it's signal can be clearly "seen" by the firing ship's radar.

BEACON PLACED UPRIGHT

The beacon antenna is omnidirectional (it transmits in all directions, horizontally). It has a 30 degree vertical beam width, making upright positioning of the beacon very important.

TASK: 11B.5.7 CONTROL OF A NGF BEACON MISSION

CONDITIONS:

ANGLICO is in support of tactical operations. Radar beacons have been positioned ashore to provide fire support ships with an electronic aid to navigation.

STANDARDS: 11B.5.7.1 - 11B.5.7.6
EVAL: Y; N; NE

.1 ____ The FCT has radio contact with the NGF support ship.

.2 ____ The NGF beacon is set up and functioning properly.

.3 ____ AGC is utilized when "over interrogation" or jamming is recognized.

.4 ____ Properly sets all operating switches in appropriate positions as stated in equipment technical manuals.

.5 ____ Uses proper procedures to interrogate ship on beacon code.

.6 ____ Fire mission is conducted using normal call for fire procedures.

EVALUATOR INSTRUCTIONS:

Each FCT spotter involved in the evaluation will control a NGF mission using the radar beacon.

KEY INDICATORS: None.

MPS 11.6 PARACHUTE OPERATIONS

TASK: 11B.6.1 PLAN FOR PARACHUTE OPERATIONS

CONDITIONS:

ANGLICO is tasked to support tactical operations in a joint/combined operation. A parachute jump is required to link-up ANGLICO personnel with the supported unit. The jump can be conducted during daylight, night, or low visibility conditions. The aircraft supporting the drop can be either fixed or rotary wing aircraft. Security at the drop zone (DZ) will be provided by the supported unit.

STANDARDS: 11B.6.1.1 - 11B.6.1.17
EVAL: Y; N; NE

.1 ____ Begins detailed planning immediately after receiving the warning order, and alerts subordinates.

.2 ____ Determines tactical situation, size of DZ, time of drop, and delivery assets.

.3 ____ Determines if the DZ is certified, and if not, requests USAF CCT support, if required.

.4 ____ Task organizes according to requirements and experience level of personnel, ensuring all designated jumpers are school trained and currently qualified.

.5 ____ Schedules a rehearsal jump(s) using the same delivery means and under the same approximate conditions, if time permits.

.6 ____ Requests weather information at the rehearsal and planned DZ; i.e., projected winds aloft and on the ground, as well as cloud cover.

.7 ____ Ensures safety requirements are met at both the rehearsal and planned DZ.

.8 ____ Plans for positive ground to air communications with adequate redundancy.

.9 ____ Coordinates the marking of the rehearsal and planned DZ; i.e., smoke, pyrotechnics, wind sock, panels, or utilizes an AN/PPN-19 with compatible transport aircraft.

.11 ____ Ensures all critical signals are understood, specifically, those signals on the ground to cancel the drops.

.12 ____ Requests a wind drift indicator to be dropped prior to the rehearsal jump.

.13 ____ Make up sticks of jumpers based on the tactical situation, DZ size, aircraft type, and experience level of the personnel.

.14 ____ Ensures experienced personnel are scheduled in each stick.

.15 ____ Schedules tactical briefs for pilots and loadmasters, and for ANGLICO personnel and jumpmasters.

.16 ____ Determines the requirement for the air drop of equipment pallets.

.17 ____ Ensures spare parachutes, main and reserve, are available.

EVALUATOR INSTRUCTIONS

ANGLICO has the responsibility to ensure all personnel are school trained and have maintained at least minimum qualifications.

KEY INDICATORS: None.

TASK: 11B.6.2 PREPARE FOR PARACHUTE OPERATIONS

CONDITIONS:

ANGLICO is tasked to support tactical operations in a joint/combined operation. A parachute jump is required to link-up ANGLICO personnel with the supported unit. The jump can be conducted during daylight, night, or low visibility conditions. The aircraft supporting the drop can be either fixed or rotary wing aircraft. Security at the DZ will be provided by the supported unit.

STANDARDS: 11B.6.2.1 - 11B.6.2.8
EVAL: Y; N; NE

.1 ____ Jumpmaster(s) receive brief from pilots and loadmasters on in-flight emergencies, and signals within the aircraft.

.2 ____ Jumpmaster(s) conduct a detailed pilot/flight crew briefing to include DZ brief, in-flight procedures, and towed jumper procedures.

.3 ____ Jumpmaster provides in-flight orientation to all personnel.

.4 ____ Conducts a detailed brief of the tactical situation to be supported.

.5 ____ Conducts an equipment check (2 checks per jumper) or in-flight checks if in-flight rigging is appropriate.

.6 ____ Ensures serviceable flashlights/chem lights/strobes are issued to each jumper for night jumps.

.7 ____ Inspects to ensure the type device or method used to highlight each night jumper is serviceable and prominenty displayed.

.8 ____ Ensures serviceable flotation device is issued to each jumper if the operation is within the proximity of a large body of water.

EVALUATOR INSTRUCTIONS:

ANGLICO is responsible to ensure both jumpmasters and riggers are qualified.

KEY INDICATORS: None.

TASK: 11B.6.3 CONDUCT OF PARACHUTE JUMP

CONDITIONS:

ANGLICO element is jumping into a designated objective area.

STANDARDS: 11B.6.3.1 - 11B.6.3.4
EVAL: Y; N; NE

.1 ____ All Marines jump on command.

.2 ____ All Marines in the stick track on the leader and land within the objective area.

.3 ____ All Marines properly deploy combat equipment.

.4 ____ All Marines assemble as briefed, within 10 minutes after the last jumper has landed. (KI)

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

ASSEMBLE AFTER JUMP

After the jump has been completed, the unit's ability to reorganize both personnel and equipment are indicative of their ability to become operational in the shortest possible time.

11B.7 CONTINUING ACTIONS BY MARINES

TASK: 11B.7.1 DISCIPLINE

CONDITIONS:

The ANGLICO element has been given a mission to support elements of a U.S. Army or allied airborne/ground division. Standards apply to supporting arms liaison teams (SALT) and FCT's.

STANDARDS: 11B.7.1.1 - 11B.7.1.11
EVAL: Y; N; NE

.1 ____ Unit discipline is demonstrated by individual members being in control of themselves and contributing to mission accomplishment.

.2 ____ Marines take care to safeguard and clean their individual weapons daily.

.3 ____ Vehicles, etc., are given regular maintenance by the Marines assigned to operate them.

.4 ____ Marines fire their weapons in a controlled manner when engaged. Random wastage of ammunition is not tolerated by unit leaders.

.5 ____ Marines do not waste or abuse unit supplies or material.

.6 ____ Supplies are safeguarded from the enemy and from the weather, and are not scattered as litter on the terrain.

.7 ____ Marines operating radios do not expose themselves to radio detection from enemy radio direction finding (RDF) by unnecessary or repetitious message traffic. Standard prowords are used and communication checks are limited. All personnel using radios adhere to required standards of performance regardless of grade.

.8 ____ Teams cannot be detected by enemy as a result of poor noise discipline.

.9 ____ Teams cannot be detected by enemy as a result of poor light discipline.

.10 ____ Marines wear the prescribed uniform at all times.

.11 ____ Leaders actively promote field sanitation and personal hygiene by enforcing use of designated heads, good personal health habits, police of area, and inspection of condition of foot and body sores.

EVALUATOR INSTRUCTIONS:

With exceptions, evaluators will use the 90 percent rule (90 percent of the Marines 90 percent of the time) to determine whether requirements are being met. The exceptions will be communications, noise, and light discipline. These standards will stand literally. If a unit is located by RDF or observation as a result of noise or light, the standard cannot be considered as having been met. Evaluators must determine if the unit is violating light, noise discipline, and communications procedures when no aggressors or EW support is available. This task will be evaluated over the entire exercise, and evaluators will note efforts of unit leaders to improve performance and correct discrepancies.

KEY INDICATORS: None.

TASK: 11B.7.2 USE OF COVER

CONDITIONS:

ANGLICO teams have been successfully inserted into the area of operations, and are moving to join with an allied force. The enemy has day and night observation capability.

STANDARDS: 11B.7.2.1 - 11B.7.2.3
EVAL: Y; N; NE

.1 ____ Individual Marines, including vehicle drivers, demonstrate by tactical and personal example, an understanding of use of covered routes and covered positions.

.2 ____ Halted elements and vehicles do not remain in exposed locales, moving immediately into the nearest cover.

.3 ____ All individual Marines make use of available material to improve cover continuously when operating from stationary positions.

EVALUATOR INSTRUCTIONS:

Evaluator observes individual Marines and the performance of various units within the organization. This task is applicable throughout the exercise, as long as tactical operations are underway. Evaluator reaches a YES evaluation based on his observation that 90 percent of the Marines in the unit participate throughout the exercise with the quality of performance defined by the requirements.

KEY INDICATORS: None.

TASK: 11B.7.3 USE OF CAMOUFLAGE AND CONCEALMENT

CONDITIONS:

The ANGLICO element is supporting tactical operations. The enemy forces have direct and indirect fire, air, and EW capabilities. The enemy also has a night observation capability.

STANDARDS: 11B.7.3.1 - 11B.7.3.4
EVAL: Y; N; NE

.1 ____ Individual Marines demonstrate attention to detail in camouflage paint, individual camouflage awareness, and equipment assigned to them.

.2 ____ Ensures that the principles of camouflage siting, discipline, and construction are employed continuously throughout operations.

.3 ____ Uses natural materials and camouflage screen support system to conceal positions and vehicles from enemy ground observation to a distance of 200 meters.

.4 ____ Camouflages all positions to prevent identification by enemy aircraft by employing the use of soil, fresh foliage, and netting.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

VEHICLES

- All light colored tactical markings are dulled or covered.
- All reflective surfaces are dulled or covered (mirrors and windshield removed or covered).
- Are equipped with proper camouflage netting, and garnished.

TASK: 11B.7.4 RADIO COMMUNICATIONS

CONDITIONS:

The ANGLICO element is supporting tactical operations. A communications plan has been distributed.

STANDARDS: 11B.7.4.1 - 11B.7.4.10
EVAL: Y; N; NE

.1 ____ Demonstrates effective frequency and antenna separation.

.2 ____ Selects and correctly employs the proper antenna.

.3 ____ Follows correct safety techniques.

.4 ____ Follows proper grounding procedures.

.5 ____ Complies with lost communications procedures.

.6 ____ Employs circuit profile techniques.

.7 ____ Demonstrates effective equipment power management to ensure reliable communications.

.8 ____ Follows correct operator procedures.

.9 ____ Employs COMSEC equipment properly, and operators use correct COMSEC procedures.

.10 ____ Employs techniques to alleviate environmental and weather conditions affecting equipment employment.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11B.7.5 EMPLOY ECCM

CONDITIONS:

The ANGLICO element is supporting tactical operations. A communications plan has been distributed.

STANDARDS: 11B.7.5.1 - 11B.7.5.12
EVAL: Y; N; NE

.1 ____ Uses terrain masking techniques where practical.

.2 ____ Uses only authorized codes.

.3 ____ Correctly uses authentication/numerical encryption.

.4 ____ Radio operators continue to operate through enemy jamming activity without revealing its effectiveness, and send messages by alternate means, if available.

.5 ____ Radios are remoted to the maximum extent practical.

.6 ____ Wire circuits are installed at every feasible opportunity.

.7 ____ Net discipline is maintained using proper procedures.

.8 ____ Adheres to EMCON conditions.

.9 ____ Employs directional antennas to reduce electromagnetic signature when feasible.

.10 ____ Transmitting antennas are sited on the reverse slope of the hill (away from the enemy) when practicable.

.11 ____ Beadwindow/Gingerbread procedures are properly used.

.12 ____ Reports meaconing, intrusion, jamming, and interference (MIJI) per formats and procedures designated.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11B.7.6 PROVIDE COMSEC SECURITY MEASURES

CONDITIONS:

The ANGLICO element is supporting tactical operations. A communications plan has been distributed.

STANDARDS: 11B.7.6.1 - 11B.7.6.2
EVAL: Y; N; NE

.1 ____ Ensures the accountability of classified material and equipment.

.2 ____ Adheres to current directives applicable to CMS material.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11B.7.7 CONDUCT RADIO OPERATOR MAINTENANCE

CONDITIONS:

The ANGLICO element is supporting tactical operations. A communications plan has been distributed.

STANDARDS: 11B.7.7.1 - 11B.7.7.3
EVAL: Y; N; NE

.1 ____ Possesses equipment record jackets and appropriate TM's.

.2 ____ Performs operator PM's per the applicable TM's.

.3 ____ Conducts routine maintenance checks.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11B.7.8 RESPONSE TO ENEMY AIR CAPABILITIES

CONDITIONS:

The ANGLICO element is supporting tactical operations. The enemy, in addition to direct and indirect fire and EW capabilities, has a fixed and rotary wing capability.

STANDARDS: 11B.7.8.1 - 11B.7.8.5
EVAL: Y; N; NE

.1 ____ Unit has established procedures for both passive and active air defense.

.2 ____ Air guards are designated.

.3 ____ Marines are instructed on the supported unit's alarm system to warn of air attack.

.4 ____ If given advance warning of approaching hostile aircraft, Marines react by dispersing per established passive measures and by taking appropriate active defensive actions when attacked.

.5 ____ Reports attack by enemy air to higher headquarters by flash message.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

11B.8 NBC OPERATIONS

TASK: 11B.8.1 PREPARE FOR NBC OPERATIONS

CONDITIONS:

Threat forces have employed NBC, air, and ground attacks in the area aimed at destroying/disrupting operations and facilities. Due to the threat, passive and active defense measures must be used for survival of the supported unit.

STANDARDS: 11B.8.1.1 - 11B.8.1.3
EVAL: Y; N; NE

.1 ____ All individual NBC defense equipment authorized the unit by T/E is issued to each individual.

.2 ____ MOPP level is established by the supported unit CO/OIC, and personnel are at or above required MOPP level.

.3 ____ Marines properly identify NATO or threat NBC contamination markers.

EVALUATOR INSTRUCTIONS:

Provide the unit information to expect an imminent nuclear attack by the enemy. Integrate NBC scenarios with normal operational activities.

KEY INDICATORS: None.

TASK: 11B.8.2 PREPARE FOR NUCLEAR ATTACK

CONDITIONS:

Unit is informed that nuclear weapons have been used in the theater of operations. That information is relayed to subordinate commanders, staff and attached elements.

STANDARDS: 11B.8.2.1 - 11B.8.2.11
EVAL: Y; N; NE

.1 ____ Back-up command, control and communications procedures are identified.

.2 ____ Subordinate/displaced elements are alerted (if applicable).

.3 ____ Continues mission while implementing actions to minimize casualties and damage.

.4 ____ ANGLICO teams implement protective measures, as directed by the supported unit consistent with the mission.

.5 ____ Personnel minimize exposure by rolling down sleeves, buttoning collars, and wearing additional clothing equal to a two layered uniform.

.6 ____ Personnel take cover in foxholes, bunkers, armored vehicles, existing shelters (basements, culverts, caves, tunnels, etc.), or lie prone on open ground.

.7 ____ Vehicles are placed behind masking terrain.

.8 ____ Electronic equipment is protected from electromagnetic pulse (EMP) by removing it from exposed locations and placing it in covered/hardened locations/vehicles.

.9 ____ Personnel identify/prepare shelters from heat, blast, and radiation.

.10 ____ All loose items, flammable/explosive items, food, and water are secured/protected from heat, blast, and radiation.

.11 ____ Marines are familiar with standard first aid procedures to provide self/buddy aid for nuclear blast and thermal effects.

EVALUATOR INSTRUCTIONS:

Unit is informed that nuclear weapons have been used.

KEY INDICATORS: None.

TASK: 11B.8.3 RESPOND TO THE INITIAL EFFECTS OF A NUCLEAR ATTACK

CONDITIONS:

Nuclear attack is simulated by the detonation of an artillery or nuclear blast simulator or by other appropriate means.

STANDARDS: 11B.8.3.1 - 11B.8.3.5
EVAL: Y; N; NE

.1 ____ Upon recognizing the attack, all personnel take immediate action to shield themselves and vital equipment from blast/heat of detonation.

.2 ____ Chain of command and communications are maintained or reestablished. Unit resumes mission if possible.

.3 ____ Casualties are given first aid and are evacuated to a medical treatment station as mission permits; fatalities are evacuated to a graves registration collection point.

.4 ____ Damage assessment is submitted by secure means to the supported headquarters.

.5 ____ Team leaders demonstrate the ability to utilize the IM-143 or AN/PDR-75 radiac meter, and report the readings.

EVALUATOR INSTRUCTIONS:

Evaluator will assess constructive casualties due to blast, heat dazzle, radiation, and EMP. The EMP casualties will be assessed by the evaluator for all communications systems (antennas, receivers/transmitters) that are exposed (not in a covered or hardened location/vehicle) during the simulated nuclear detonation.

KEY INDICATORS: None.

TASK: 11B.8.4 PREPARE FOR A FRIENDLY NUCLEAR STRIKE

CONDITIONS:

Unit receives a friendly nuclear STRIKWARN per FM 3-100. All, or portions of the unit, are within minimum safe distance (MSD) 2 to 3.

STANDARDS: 11B.8.4.1 - 11B.3.4.11
EVAL: Y; N; NE

.1 ____ ANGLICO element commander acquires pertinent information regarding the planned detonation (time of burst, ground zero, fall-out coverage, MSD, etc.).

.2 ____ Advises subordinates of the measures needed to prevent casualties, damage, and extended interference with the mission.

.3 ____ ANGLICO element commander keeps current on the NBC situation on behalf of his teams.

.4 ____ ANGLICO element commander ensures that when supported unit warns subordinate or attached elements and aircraft affected by the burst (within MSD 3 and/or fall-out zone), those warnings include spotter teams. (KI)

.5 ____ ANGLICO elements implement protective measures, as directed by the supported unit consistent with the mission.

.6 ____ Personnel minimize exposed skin by rolling down sleeves, buttoning collars, and wearing additional clothing equal to a two layer summer uniform.

.7 ____ Personnel take cover in foxholes, bunkers, armored vehicles, existing shelters (basements, culverts, caves, tunnels, etc.), or lie prone on open ground.

.8 ____ Vehicles are placed behind masking terrain.

.9 ____ Electronic devices are turned off; erected antennas are disassembled or are tied down.

.10 ____ All loose items (small weapons, tools, etc.) and highly flammable/explosive items (POL, ammunition, propellants, etc.) are placed in armored vehicles or shelters.

.11 ____ Spotter teams acknowledge the warning before the expected time of burst.

EVALUATOR INSTRUCTIONS:

Evaluator simulates nuclear detonation with an artillery or nuclear blast simulator, or informs the unit that nuclear blast has occurred. Evaluator assesses casualties and damage to unprotected personnel and equipment.

KEY INDICATORS:

WARNINGS

Supported unit may warn spotter teams via the ANGLICO element commander of an impending nuclear detonation by one of the following methods.

- Using a proword or brevity code from the CEOI to indicate the message is a nuclear strike warning.
- A brief prearranged message that directs the receiver to implement specific protective measures.
- Encoded message with expected time of burst if time allows.
- Secure voice or messenger.

TASK: 11B.8.5 PREPARE FOR A CHEMICAL AGENT ATTACK

CONDITIONS:

ANGLICO element commander has been informed by the unit that chemical weapons have been used in the theater of operations and that a chemical attack is imminent.

STANDARDS: 11B.8.5.1 - 11B.8.5.8
EVAL: Y; N; NE

.1 ____ FCT's are directed to assume MOPP consistent with mission, temperature, and work rate.

.2 ____ Mission essential tasks that require a high degree of manual dexterity or physical strength and are difficult to perform in MOPP 4 are identified. Alternate methods, such as allowing more time, rotating, or assigning additional personnel, are planned.

.3 ____ Marines determine criteria and demonstrate the capabilities for donning the protective mask and chemical protective ensemble.

.4 ____ The buddy system is established to facilitate monitoring/treatment for chemical agent poisoning and emergency decontamination.

.5 ____ Continues mission while implementing all actions to minimize casualties and damage.

.6 ____ Portions of essential equipment, food, and water supplies that cannot be placed in a shelter are covered with expendable (or readily decontaminated) tarps, shelter halves, or ponchos.

.7 ____ Detector paper is affixed to visible, horizontal surfaces of protective clothing and on equipment, munitions, etc.

.8 ____ Marines demonstrate a knowledge of chemical agent symptoms.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11B.8.6 RESPOND TO A CHEMICAL AGENT ATTACK

CONDITIONS:

Unit is subjected to a chemical agent attack. Site should support the type of training being conducted and permit the safe use of simulators and training devices.

STANDARDS: 11B.8.6.1 - 11B.8.6.11
EVAL: Y; N; NE

.1 ____ Upon hearing a chemical alarm, personnel take immediate protective measures followed by treatment/decontamination of casualties. (KI)

.2 ____ Personnel automatically mask upon notification of any enemy artillery, rocket, air attack, or overflight.

.3 ____ Personnel automatically mask upon perceiving a suspicious odor, airborne droplets/mist, or smoke from unknown source.

.4 ____ Marines do not unmask until authorized by their immediate commander. (KI)

.5 ____ Teams are able to perform mission for at least 4 hours while in MOPP 4.

.6 ____ Type of chemical agent is identified and reported using available detector kit.

.7 ____ WIA's are treated for chemical symptoms, wrapped, marked as contaminated, and evacuated as mission permits.

.8 ____ KIA's are wrapped, marked as contaminated, and evacuated as mission permits. Graves registration collection point is alerted.

If nonpersistent agent:

.9 ____ Unmasking procedure is followed.

.10 ____ ANGLICO element commander adjusts MOPP level as required.

.11 ____ Teams are able to handle and provide first aid treatment to casualties in a chemical environment.

EVALUATOR INSTRUCTIONS:

Selected personnel are presented decontamination training kits and first aid treatment training devices to "treat designated casualties". Every attempt must be made to provide a realistic situation through devices, scenarios, or other aids developed through innovation. The key to a thorough evaluation is a realistic, well supported situation imposed by the trainer/evaluator.

CHEMICAL CASUALTIES

Chemical casualties are described as:

- Personnel without mask and hood within arms reach, without decontamination kits, or not wearing chemical protective clothing.

- Personnel not taking immediate corrective actions upon perceiving the attack, hearing a chemical agent alarm, being ordered to mask, or using incorrect masking procedures (not masking within 9 seconds), or making incorrect use of decontamination kits/first aid treatment items.

- Marines who unmask or otherwise assume a lesser degree of MOPP without being authorized to do so by the commander.

KEY INDICATORS:

UNMASKING PROCEDURES

When a detector kit is available, the following unmasking procedures will be adhered to:

a. After determining absence of agents, two or three Marines unmask for 5 minutes.

b. Marines remask and are examined in a shady area for symptoms for 10 minutes.

c. If no symptoms appear, remainder of unit may unmask.

When no detector kits are available, the following unmasking procedures will be adhered to:

a. Two or three Marines take a deep breath, hold it, break the seal on their masks, and keep their eyes open for 15 seconds.

b. Then they clear their masks, reestablish the seal and wait 10 minutes.

c. If no symptoms appear, the same Marines break the seal of their masks, take two or three deep breaths, clear and reseal their masks.

d. If after 10 minutes no symptoms have appeared, the same Marines unmask for 5 minutes and then remask.

e. If after 10 more minutes no symptoms have appeared, the rest of the unit may unmask.

TASK: 11B.8.7 PERFORM HASTY DECONTAMINATION

CONDITIONS:

Personnel and equipment have been contaminated by chemical agents. Time is not available for complete decontamination. The hazard is such that hasty decontamination is required. All personnel are maintaining a maximum MOPP.

STANDARDS: 11B.8.7.1 - 11B.8.7.5
EVAL: Y; N; NE

.1 ____ Decontamination procedures are appropriate to items being decontaminated. (KI)

.2 ____ Team equipment and vehicles are decontaminated using appropriate expedient devices.

.3 ____ Adequacy of decontamination is determined.

If inadequate:

a. Procedures are repeated.

b. Decontamination support is requested.

c. Risk of using equipment is accepted.

.4 ____ Contaminated materials are discarded according to tactical SOP, marked as contaminated, and location provided to higher headquarters.

.5 ____ Commander reduces MOPP level, if appropriate.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

DECONTAMINATION PROCEDURES

Initial decontamination of unit equipment, vehicles, and crew served weapons may be accomplished by removing all gross liquid contamination with sticks or other improvised devices, which are buried after use. Follow by spraying areas with DS2 or water in a training environment.

Contaminated items that may need special decontamination treatment are:

a. POL, food, water containers, and munitions. Wash with soapy water, rinse, and thoroughly air dry.

b. Communications equipment, and other electronic equipment. Decontaminated with hot air, by weathering, or all metal parts are wiped with rags soaked with DS2 (water is used for training purposes).

c. Optical instruments. Blotted with rags and then wiped with lens cleaning solution or organic solvent.

TASK: 11B.8.8 COORDINATE FOR DELIBERATE DECONTAMINATION OF EQUIPMENT

CONDITIONS:

Equipment has been contaminated by a chemical agent. Hasty decontamination has been accomplished. Time is available for complete decontamination. Decontamination support from a decontamination unit is available upon request.

STANDARDS: 11B.8.8.1 - 11B.8.8.4
EVAL: Y; N; NE

.1 ____ Coordination is made with the supported unit as to time of arrival, estimated time of completion, and location of decontamination site.

.2 ____ Main body arrives at MOPP gear exchange/vehicle washdown assembly area and organizes for processing.

.3 ____ Decontamination begins as scheduled.

.4 ____ ANGLICO element commander adjusts MOPP level, as appropriate.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11B.8.9 EXCHANGE PROTECTIVE CLOTHING

CONDITIONS:

Wear and tear have rendered the overgarments unserviceable or the expected serviceability period has been exceeded or the protective clothing is contaminated.

STANDARDS: 11B.8.9.1 - 11B.8.9.2
EVAL: Y; N; NE

.1 ____ Contaminated clothing is removed without transfer of contamination.

.2 ____ Individuals put on new protective clothing.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11B.8.10 SCORE THE NBC EXAM

CONDITIONS:

Exam will be prepared at the higher command element level and will be completed within 30 minutes. All available personnel will take the examination.

STANDARDS: 11B.8.10.1 - 11B.8.10.10
EVAL: Y; N; NE

.1 ____ Unit averaged 10 percent or higher.

.2 ____ Unit averaged 20 percent or higher.

.3 ____ Unit averaged 30 percent or higher.

.4 ____ Unit averaged 40 percent or higher.

.5 ____ Unit averaged 50 percent or higher.

.6 ____ Unit averaged 60 percent or higher.

.7 ____ Unit averaged 70 percent or higher.

.8 ____ Unit averaged 80 percent or higher.

.9 ____ Unit averaged 90 percent or higher.

.10 ____ Unit averaged 100 percent.

EVALUATOR INSTRUCTIONS:

Standards will be marked either Y or N, as appropriate. As an example, if the team average was 76 percent, Task 11B.8.10.1 through 11B.8.10.7 would be marked Y (Yes) and the remainder would be marked N (No).

Required Data:

1. Number of personnel in unit: _____.
2. Number of personnel taking exam: _____.
3. Element average: _____.

KEY INDICATORS: None.

SECTION 11C

RECONNAISSANCE

CANCELED VIA MCO P3500.73

SECTION 11D

DETACHMENT, RADIO BATTALION

TABLE OF CONTENTS

MISSION PERFORMANCE STANDARDS

DETACHMENT, RADIO BATTALION

INTRODUCTION

This section contains MPS's designed to facilitate the evaluation of a Detachment, Radio Battalion. The Detachment, Radio Battalion is not provided with a permanently structured staffing or equipment listing. Instead, it is a task organized response for a particular mission assignment. Within this framework, MPS's have been prepared to encompass those functions that all such detachments must accomplish, regardless of the manner in which they have been organized, staffed, or equipped. A representative sample of typical functions includes:

- Coordination of detachment operational activities.
- Promulgation of plans and orders based on directives from higher command elements.
- Recommendations for the resolution of SIGINT/EW conflicts through allocation of available resources.
- Establishment and assignment, in concert with the supported commander, of missions for subordinate elements.
- Submission of requests for support and/or resources from sources external to the Marine Air Ground Task Force.
- Providing technical guidance, supervision, and specialized logistic support for the operations of subordinate elements.
- Promulgation of priorities of effort that are in concert with the orders and goals established by the supported commander.
- Continuous and close liaison with the supported commander and his staff.

As a task organized detachment some limiting factors may be present. Examples of matters that are pertinent to this aspect of evaluation include:

- The detachment can only provide basic local security, and the sensitive nature of its operations requires that it be placed within a protected area.
- The equipment utilized by a detachment may include power generators, communications shelters, team and man portable equipment, and other items requiring considerable logistical support.
- Some single channel communications systems are included in the detachment equipment inventory for internal communications, but long haul and multichannel links must be provided from Marine Air Ground Task Force assets.

A related aspect is the degree of participation with Navy cryptologic elements in amphibious exercises. If the Navy does not participate to the degree envisioned in Marine Corps doctrine, many of the tasks relating to joint cryptologic planning cannot be completely accomplished regardless of the amount of effort expended. Evaluators faced with this situation should use the "NOT APPLICABLE" notation and make comments for the TEC in the comments column of the MPS. Portions of the standards may be utilized as they fit a particular scenario or operation without prejudice to the evaluated unit for not attempting all standards.

Of particular importance in the use of the MPS's contained in this volume is the fact that many of the planning and coordination functions described in the tasks and requirements can occur either in varying order or simultaneously. The effective use of the MPS's requires that the evaluator retain sufficient flexibility to examine various activities for the quality of the effort before making a judgment concerning the particular sequence of action chosen. Only then can the evaluator arrive at a valid determination as to whether or not the detachment is, in fact, fulfilling its role.

Recommended changes to this section should be submitted to Commandant of the Marine Corps (TDC), Washington, DC 20380-0001. Each suggested change must cite the specific item, volume, page, paragraph or line of test, and include both comments and recommended improvements.

11D.1 PLANNING

TASK: 11D.1.1 CONDUCT SIGINT/EW PLANNING

CONDITIONS:

The radio battalion detachment is in receipt of a warning order alerting them of a requirement to support tactical operations. The detachment has been given direction to report to the supported MAGTF for planning and for operations. Threat forces have direct and indirect fire, both fixed and rotary wing aircraft, and EW capabilities.

STANDARDS: 11D.1.1.1 - 11D.1.1.19
EVAL: Y; N; NE

.1 ____ Acknowledges receipt of the warning order and initiates detailed planning.

.2 ____ Issues a warning order to subordinates with an information copy to the supported command element.

.3 ____ Conducts an analysis of the supported unit's mission in respect to METT-T and available information.

.4 ____ Assists in developing intelligence/information requirements on the vulnerability of enemy forces to ECM/ESM actions and the capability of enemy forces to conduct ECM/ESM against friendly forces in coordination with the G/S-2.

.5 ____ Receives commander's initial planning guidance.

.6 ____ Examines the supported unit's proposed courses of action.

.7 ____ Prepares an estimate of supportability. (KI)

.8 ____ Makes recommendations on tactical employment of the detachment.

.9 ____ Develops SIGINT/EW Support Plan based upon the commander's guidance and the approved courses of action.

.10 ____ Plans for the integration of SIGINT, ground EW, COMSEC monitoring, and analysis during all phases of the operation.

.11 ____ Considers employment of radio reconnaissance team(s).

.12 ____ Ensures personnel assigned the detachment reflect mission requirements to include the proper mix of linguists, electronic countermeasures operators, DF operators, manual morse operators, traffic analysts, nonvoice communication intercept operators, noncommunication intercept operators, and special communicators.

.13 ____ Plans the equipment mix based on stated, implied and anticipated missions, commander's guidance, mobility requirements, and known or anticipated signals environment.

.14 ____ Assists in preparing the Signals Intelligence Appendix to the Intelligence Annex and Electronic Warfare Appendix to the Operations Annex in coordination with the G/S-2, SIO, G/S-3, CEO, and EWO for inclusion in the supported unit's operations order.

.15 ____ Provides input to the G/S-2 on requesting theater/national assets.

.17 ____ Submits requirements to the CEO for frequencies/call signs/communications, security materals, and/or augmented equipment for inclusion in CEOI/ communications plan.

.18 ____ Coordinates with CATF cryptologic elements to ensure that LF cryptologic objectives are supported when involved in an amphibious operation.

.19 ____ Issues orders to subordinates as a result of each formal or fragmentary order issued by the supported unit.

EVALUATOR INSTRUCTIONS:

The focus of this task is on the functioning of the radio battalion detachment OIC as he fulfills his basic planning responsibilities to the supported MAGTF. This task is evaluated throughout all phases. The evaluator should note that some of the requirements are one time actions and some are repetitive actions that will recur as the tactical situation changes.

KEY INDICATORS:

ESTIMATE OF SUPPORTABILITY

When the supported unit staff has developed various courses of action for consideration by the commander, the radio battalion detachment OIC develops his estimate of supportability. This estimate can be written or verbal dependent on time available. To accomplish this estimate, the OIC must consider the following aspects:

a. Terrain and weather in the area of operations which has a major effect on the employment of SIGINT/EW elements.

b. Enemy communications and noncommunications electronic systems in the area of operations, to include:

(1) Density of emitters within enemy forces.

(2) Dependence on emitters by the enemy.

(3) System technical characteristics and techniques to include frequency ranges, power output, emission and system types, and antenna configurations.

(4) Security systems and practices utilized by the enemy.

(5) Deception practices utilized by the enemy.

(6) Enemy communications and noncommunications electronics operating procedures.

(7) Systems structure.

(8) Enemy language and dialects.

c. Capability of SIGINT/EW assets, internal and external to the MAGTF, to support each of the courses of action envisioned, with emphasis on:

(1) Signals intelligence, electronic warfare, and communications equipment requirements to support each course of action.

(2) State of proficiency of the personnel available.

(3) Combat service support and special support requirements.

d. Recommendations on whether the supported command's mission is or is not supportable, and which course of action is most supportable from a SIGINT/EW standpoint.

TASK: 11D.1.2 STAFF INTERACTION

CONDITIONS:

The MAGTF staff has received an initial brief as well as the commander's initial planning guidance. During planning, the detachment OIC assumes both the role of the unit leader as well as the MAGTF cryptologic officer, if so designated by the MAGTF commander.

STANDARDS: 11D.1.2.1 - 11D.1.2.13
EVAL: Y; N; NE

.1 ____ Advises G/S-2/3 on optimum employment of ESM assets of the detachment.

.2 ____ Advises G/S-2/3 on optimum employment of ECM assets of the detachment.

.3 ____ Advises the CEO of detachment CEOI requirements, as well as transmission requirements for special communications support.

.4 ____ Coordinates with the CEO/EWO on protected, TABOO, and guard frequencies.

.5 ____ Coordinates with the CEO for COMSEC monitoring requirements, ensuring all required friendly CEOI information is available.

.6 ____ Provides representation and information to the S/EWCC, and receives guidance from the S/EWCC when established.

.7 ____ Keeps G/S-4 and CEO informed on specialized logistical requirements resulting from environmental factors and equipment constraints.

.8 ____ Assists the SIO/EWO in the preparation and details of SIGINT/EW portions of the operational plans developed after receipt of commander's course of action decision.

.9 ____ Recommends ECCM techniques derived from the analysis of enemy EW activities and techniques, and coordinates the scheduling of ECCM training in conjunction with the CEO, if time permits, for the supported unit using their organic equipment.

.10 ____ Coordinates the movement and siting of detachment elements ashore with the G/S-2/3.

.11 ____ Coordinates the security support requirements with the G/S-2/3 for team(s) deployed ashore.

.12 ____ Keeps the G/S-2/3 informed on the location and status of deployed elements throughout the operation.

.13 ____ Keeps the G/S-1/2/3 informed on personnel status and any replacements needed.

EVALUATOR INSTRUCTIONS:

Effective and continuous coordination and the timely exchange of necessary information is essential to successful completion of the task.

KEY INDICATORS: None.

TASK: 11D.1.3 PLAN SUPPORT OF AMPHIBIOUS OPERATIONS

CONDITIONS:

The detachment commander is coordinating with the MAGTF staff and ATF SIGINT/EW personnel during the transit phase to ensure the optimum employment of detachment assets while en route and during subsequent operations ashore.

STANDARDS: 11D.1.3.1 - 11D.1.3.9
EVAL: Y; N; NE

.1 ____ Coordinates with the MAGTF SIO and CATF cryptologic/intelligence elements for planning and subsequent operations.

.2 ____ Identifies and requests special intelligence communications support for the embarked MAGTF.

.3 ____ Coordinates the provision of communications direct service to the MAGTF when deployed ashore.

.4 ____ Coordinates the detachment's utilization of Ships Signal Exploitation Spaces (SSES) and the deck mounting of equipment while embarked.

.5 ____ Coordinates the incorporation of the MAGTF Commander's EEI's and OIR's, and SIGINT support requirements into the ATF's SIGINT plan.

.6 ____ Reviews the embarkation spread of collection and communications elements to ensure the ability to conduct shipboard operations during all phases of amphibious operations exists.

.7 ____ Identifies and coordinates the support to be provided to the CATF from the detachment while embarked.

.8 ____ Coordinates the continued maintenance of target coverage by Navy personnel in the SSES when radio battalion personnel phase ashore.

.9 ____ Ensures a coordinated and orderly phasing of target focus from the CATF concerns to the CLF MAGTF concerns which are per the principles of cryptologic support to amphibious warfare (CSAW).

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

11D.2 RADIO RECONNAISSANCE OPERATIONS

TASK: 11D.2.1 PLAN RADIO RECONNAISSANCE TEAM (RRT) EMPLOYMENT

CONDITIONS:

The radio battalion detachment receives a warning order to prepare to deploy an RRT(s). The radio battalion detachment has commenced planning with the LF reconnaissance officer, MAGTF staff, and ATF SIGINT/EW personnel.

STANDARDS: 11D.1.2.1 - 11D.2.1.19
EVAL: Y; N; NE

.1 ____ Prepares brief statements of the enemy, friendly situation, and capabilities.

.2 ____ Identifies specific taskings for the RRT(s) which are within their capabilities (signals collection, location of target emitter, reporting of unevaluated information, maintenance of secure communications, etc.).

.3 ____ Conducts a detailed terrain analysis to highlight military aspects of terrain using KOCOA.

.4 ____ Prepares a detailed fire support plan which utilizes all available assets, and coordinates fire support request procedures.

.5 ____ Lists all members of the patrol.

.6 ____ Issues a warning order to subordinates within 30 minutes of receiving a warning order from the supported unit.

.7 ____ Establishes the chain of command.

.8 ____ Covers all necessary individual requirements in the assigment of positions and duties.

.9 ____ Follows established principles in organizing the patrol into elements and teams.

.10 ____ Lists all required special equipment to accomplish the mission.

.11 ____ Designates individuals to carry the special equipment.

.12 ____ Selects a common uniform and personal equipment based on weather, terrain, and mission.

.13 ____ Publishes a schedule which includes the time of the issuance of the patrol order, rehearsal, inspection schedule, issuance of supplies, equipment, and weapons.

.14 ____ Ensures all designated patrol members understand the patrol warning order.

.15 ____ Issues specific preparation instructions to key individuals; i.e., duties, responsibilities, etc.

.16 ____ Coordinates RRT employment with the supported unit commander.

.17 ____ Coordinates with the ATF/MAGTF for SI communications, SIGINT/EW support.

.18 ____ Plans for reliable, low probability of exploitation (LPE), low probability of intercept (LPI), communications with MAGTF, CATF, supported mission commander, reconnaissance elements, etc., as required.

.19 ____ Coordinates with reconnaissance personnel when planning the insertion/extraction of radio recon teams.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11D.2.2 ISSUES A PATROL ORDER

CONDITIONS:

The radio reconnaissance patrol leader has issued a patrol warning order to patrol members, completed his patrol order, and is ready to issue the order.

STANDARDS: 11D.2.2.1 - 11D.2.2.25
EVAL: Y; N; NE

.1 ____ Ensures all patrol members are present prior to issuing the order.

.2 ____ Conducts an orientation briefing for all members prior to issuing the patrol order.

.3 ____ Uses a terrain model, map sketch, or other visual aids when briefing the plan.

.4 ____ Uses aerial imagery as a map supplement which has the scale determined and a grid superimposed.

.5 ____ Provides a weather forecast for the patrol period.

.6 ____ Describes the terrain over which the patrol is to operate.

.7 ____ Identifies the size, type, and capabilities of enemy units known to be in the area of operations, or suspected locations, and recent activities.

.8 ____ Provides planned routes of other patrols operating in the immediate area.

.9 ____ Briefs the fire support plan that includes artillery, air, NGF, and location of approved targets.

.10 ____ Identifies any attachments to the patrol.

.11 ____ Specifies the patrol mission.

.12 ____ Provides a complete concept of the patrol's operation.

.13 ____ Specifies the task of each element and all key individuals.

.14 ____ Includes all coordinating instructions; i.e., time of departure and return, primary and alternate routes, organization for movement, procedures for crossing danger areas while en route, actions on enemy contact, actions at rallying points, actions at the objective area, actions at obstacles, emergency extractions, and rules of engagement, etc.

.15 ____ Briefs the patrol in the event of capture, injury to personnel, and inadvertent compromise.

.16 ____ Briefs plan for insertion of patrol in detail as a separate annex to the patrol order.

.17 ____ Specifies times and place of rehearsals and inspections.

.18 ____ Briefs those administrative and logistics items requiring highlighting not covered in the warning order or not previously mentioned.

.19 ____ Reviews all signals to be used within the patrol.

.20 ____ Briefs communications as a separate annex to the patrol order.

.21 ____ Identifies time and frequency of required reports to higher command element.

.22 ____ Covers intrapatrol and unit challenge and passwords.

.23 ____ Specifies the location of the patrol leader, assistant patrol leader, as well as element leaders during all stages of the patrol.

.24 ____ Ensures that all personnel understand the order and are cognizant of their duties and responsibilities.

.25 ____ Allows time for questions and answers.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11D.2.3 PREPARE AND REHEARSE

CONDITIONS:

The radio reconnaissance patrol leader has issued his patrol order and specified inspection and rehearsal times.

STANDARDS: 11D.2.3.1 - 11D.2.3.23
EVAL: Y; N; NE

.1 ____ Allots adequate inspection and rehearsal time.

.2 ____ Utilizes a premission checklist.

.3 ____ Conducts the inspection in the patrol formation(s) after ammunition is distributed and rucksacks/loadbearing equipment (LBE) are packed.

.4 ____ Inspects the uniform for completeness and correctness, and ensures clothes fit loosely.

.5 ____ Ensures essential existence/survival equipment is carried separately from the packs.

.6 ____ Ensures documents, CEOI, maps, and notebooks are carried per unit SOP.

.7 ____ Checks for the completeness of all equipment necessary to accomplish the mission; e.g., binoculars, night vision goggles, as well as other ancillary equipment, claymore mines, etc.

.8 ____ Inspects packs to ensure no shiny metal is evident, all snaps and buckles are taped (but not with paper type), waterproof bags line the inside of the pack, and items are adjusted for noise discipline.

.9 ____ Checks the contents of the pack for compromising information, personal letters, etc.

.10 ____ Ensures grenades are properly carried, taped, and camouflaged with black or OD spraypaint.

.11 ____ Checks to ensure specified numbers of claymore mines are carried to defend the patrol base.

.12 ____ Test fires all weapons and ensures all weapon swivels are taped, and that cleaning equipment is carried.

.13 ____ Loads magazines per procedures contained in the unit SOP; i.e., use of tracers to include placement of tracers to alert the shooter of number of rounds remaining.

.14 ____ Checks to ensure that each patrol has a map and that the maps show an area of 5 to 10 km outside the planned patrol route.

.15 ____ Conducts an operational check of communications equipment, presets radio frequencies, inspects spare radio batteries to ensure they are left in plastic, and that erasers are carried to clean radio and handset terminals.

.16 ____ Checks medical supplies, and ensures cough and stomach medicine, water purification tablets, and aspirin are carried.

.17 ____ Quizzes patrol members.

.18 ____ Places packs in a secure area to prevent tampering.

.19 ____ Rehearses major actions; e.g., breaking contact, recovery of wounded, actions at the objective, actions at danger areas, reaction to ambush (right, left, front), contact, and obstacle crossing, etc., time permitting.

.20 ____ Rehearses intrapatrol communications and control measures.

.21 ____ Rehearses insertion and extraction procedures.

.22 ____ Prepares expedient antennas and rehearses antenna erection.

.23 ____ Conducts a ZIPPO brief prior to any planned helicopter insertion.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11D.2.4 EMPLOYS RADIO RECONNAISSANCE TEAM

CONDITIONS:

The RRT(s) has completed a final rehearsal and final inspection. The team is en route, and capable of being deployed during the hours of darkness.

STANDARDS: 11D.2.4.1 - 11D.2.4.39
EVAL: Y; N; NE

.1 ____ Team(s) are deployed at the time and in the location specified in the order.

.2 ____ Immediately disperses upon insertion and commences movement with a minimum of confusion and delay.

.3 ____ Conducts a security halt after moving from the insertion point and establishes communications.

.4 ____ Utilizes control measures; checkpoints, rally points, stand to/stand down, etc.

.5 ____ Uses patrol routes that avoid civilian centers, roads, trails, etc.

.6 ____ Avoids ridgelines or topographic crests except as necessary to maintain communications, or other terrain features that are natural lines of drift.

.7 ____ Maintains all around security; i.e., sectors of observation, weapons at the ready.

.8 ____ Conducts frequent security halts.

.9 ____ Remains oriented throughout the patrol, and is able to locate the patrol within ±200 meters at all times.

.10 ____ Enforces light and noise discipline (no talking, noises, smoking, etc.) throughout the patrol.

.11 ____ Ensures the count is passed forward periodically and after crossing danger areas, obstacles, and enemy contact.

.12 ____ Designates rally points frequently or as designated in the patrol order.

.13 ____ Ensures all members are informed of rallying points.

.14 ____ Recognizes danger areas and halts the patrol a safe distance away, then provides security and/or support teams to designated Marines reconnoitering the farside.

.15 ____ Submits required reports in a detailed and timely manner.

.16 ____ Takes immediate action on enemy contact, as covered in the patrol order.

.17 ____ Maintains control over the patrol during enemy contact.

.18 ____ Uses all fire support means available during enemy contact.

.19 ____ Security and stealth override any concern for speed during movement.

.20 ____ Rotates the pointman often.

.21 ____ Changes direction frequently to confuse anyone who is following.

.22 ____ Selects a harbor site away from natural lines of drift.

.23 ____ Adheres to the priority of work within the harbor site and establishes an alert plan.

.24 ____ Ensures all patrol members are aware of the evacuation plan from the harbor site.

.25 ____ Conducts police calls after rest halts, chow, etc., to ensure no trace of the patrol's presence is left behind.

.25 ____ Enforces and supervises personal hygiene measures.

.27 ____ Deployed team(s) submit position reports per the established schedule.

.28 ____ Adequate back-up equipment is deployed with the team(s) to ensure mission accomplishment.

.29 ____ Identifies and intercepts COMINT targets of ELINT interest.

.30 ____ Conducts wiretapping operations against tactical wireline communications.

.31 ____ Conducts single station radio direction finding operations and develops accurate line of bearing results.

.32 ____ Deploys hand emplaced expendable jammers.

.33 ____ Relays mission information, indications, and warnings to the MAGTF and/or supported mission commander, as directed.

.34 ____ Establishes LPE, reliable, LPI communications with the command element and/or supported mission commander, as directed.

.35 ____ Provides indications and warning (I&W) information to other advance force/recon elements, as required.

.36 ____ Successfully operates undetected.

.37 ____ Successfully incorporates the RRT(s) into follow on radio battalion detachment operations ashore, if required.

.38 ____ Extraction is as planned, at the time and site specified.

.39 ____ Maintains a detailed record of all information collected and reports submitted.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11D.2.5 CONDUCT DEBRIEFING

CONDITIONS:

A radio reconnaissance team has returned from a mission. The supported unit's intelligence section is available to assist in the debriefing.

STANDARDS: 11D.2.5.1 - 11D.2.5.9
EVAL: Y; N; NE

.1 ____ Coordinates the debriefing of recovered reconnaissance teams with the supported unit G/S-2.

.2 ____ Uses a post mission checklist.

.3 ____ Debrief concentrates on answering the EEI's and OIR's of the supported unit commander, and the original items in the mission assignment.

.4 ____ Conducts a communications debrief.

.5 ____ Entire team participates in the debrief.

.6 ____ Provides debriefers with all notes, logs, and map notations made during the patrol.

.7 ____ Team reports submitted during the patrol are compared with information submitted during the debrief.

.8 ____ Submits a detailed operations report within 6 hours after recovery.

.9 ____ Properly tags and turns over all enemy material collected during the patrol.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

11D.3 COMMAND AND CONTROL

TASK: 11D.3.1 OPERATIONS CONTROL

CONDITIONS:

The MAGTF has commenced tactical operations. The requirement exists to maintain plot/status of adjacent SIGINT/EW units and/or SIGINT/EW units in direct support of CLF; i.e., Army CEWI, USAF airborne assets, or other national or combined assets. The requirement exist to coordinate communications connectivity and exchange of SIGINT/EW information with those units per appropriate orders; e.g., USSIDS, MC-212 (NATO).

STANDARDS: 11D.3.1.1 - 11D.3.1.9
EVAL: Y; N; NE

.1 ____ Establishes an Operations, Control, and Analysis Center (OCAC). (KI)

.2 ____ Displaces ashore by echelon to ensure continuous support (collection, RDF, analysis, reporting and jamming) is provided to the MAGTF.

.3 ____ Exercises technical control over subordinate elements. (KI)

.4 ____ Maintains a detailed plot and data base of threat EOB.

.5 ____ Maintains a detailed plot on the location of all deployed elements.

.6 ____ Submits operational reports per the established SOP, and the operations order.

.7 ____ Establishes procedures to report critical, time sensitive information to CLF and subordinate staff/operational elements, as required.

.8 ____ Prepares to continue displacement forward to allow for continuous support as the situation allows.

.9 ____ Exercises control over other SIGINT/EW assets; i.e., FLTDECRGRU, CEWI Battalion, etc., if assigned OPCON responsibilities.

EVALUATOR INSTRUCTIONS:

Evaluator examines unit performance throughout all phases of the exercise. This task is critical to all evaluations. If the detachment cannot control its subordinate elements, it cannot be considered combat ready.

KEY INDICATORS:

ESTABLISHMENT OF OCAC

The OCAC provides a command and control, and central processing, analysis and reporting facility for the detachment. Collocated with the OCAC may be collection

elements in general support of the MAGTF as well as a Special Communications Terminal. Depending upon the tactical situation, it may be part of the MAGTF alpha or bravo command group and may be located either at the operations or administrative command post. OCAC security should meet the following minimum criteria as contained in DIAM 50-3:

a. Facility is located well within supported MAGTF headquarters defensive perimeter, preferably in close proximity to the combat operations center.

b. Adequate fencing is erected to assist in controlling access.

c. Access into the area is restricted to a single gate/entrance capable of being secured.

d. Gate/entrance is secured at all times except when opened for the movement of personnel and equipment, and is manned by a guard at all times, and a roving guard is posted during hours of darkness.

e. A minimum of two SI indoctrinated personnel remain in the compound at all times.

f. A current access list is maintained, and access to facility is restricted to those persons whose names appear on the list.

g. Emergency action, destruction, and evacuation plans are kept current, and all personnel are thoroughly familiar with contents.

h. When not in use, material is stored in GSA approved containers.

i. Direct communications (wire and radio if possible) are established, and maintained with the command element's local security force.

CONTROL OVER SUBORDINATE ELEMENTS

Control of subordinate elements varies with the concept of employment. Depending upon the situation, the detachment may be in general support of the MAGTF, or part of its subordinate elements may be placed in direct support or attached to elements of the MAGTF. Irrespective of mission assignment, technical control, and collection resource management remains with the OCAC.

1. If the DSU provides general support to the MAGTF, all elements are collocated with the OCAC. Control over planning and execution is centralized. Elements are deployed forward on an as required basis, but they report directly to the OCAC.

2. Due to the nature of SIGINT/EW operations, subordinate task organized elements may be deployed forward in direct support of ground combat elements. The OCAC, however, remains in general support of the MAGTF. When a direct support mission is assigned, the subordinate elements provide support with the following limitations:

a. Tasks accomplished by the elements also satisfy MAGTF assigned tasks. This does not preclude the MAGTF from assigning the subordinate element an exclusive direct support mission. However, coordination of tasking is maintained with the OCAC to ensure there is no duplication of effort or lack of coverage.

b. Information provided to the supported ground combat element must also be provided to the OCAC for further processing and verification.

c. Direct support ECM may be permitted only on frequencies previously cleared by the MAGTF Signals Intelligence/Electronic Warfare Coordination Center (S/EWCC) for preplanned missions.

3. Attachment to subordinate elements of the MAGTF for operational or mission control is assigned only when these elements are geographically divided and mutual support of SIGINT/EW assets is not possible.

TASK: 11D.3.2 RESPONSE TO DIRECTION FROM THE MAGTF

CONDITIONS:

The radio battalion detachment is in receipt of the MAGTF operations order and is supporting tactical operations.

STANDARDS: 11D.3.2.1 - 11D.3.2.5
EVAL: Y; N; NE

.1 ____ Recommends methods of integrating detachment capabilities into the approved concept of operations of the MAGTF.

.2 ____ Responds to direction from the MAGTF.

.3 ____ Adheres to the tasks and procedures contained in the MAGTF operations order.

.4 ____ Enters tactical and command nets of the MAGTF as directed.

.5 ____ Operational reports required by the MAGTF are included in a reports control system and completed expeditiously.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11D.3.3 COMMUNICATIONS COORDINATION

CONDITIONS:

The radio battalion detachment is in receipt of the MAGTF operations order and has coordinated communications requirements with the MAGTF CEO prior to the publishing of the order.

STANDARDS: 11D.3.3.1 - 11D.3.3.11
EVAL: Y; N; NE

.1 ____ Adheres to CEOI contained in plans and orders of the MAGTF. (KI)

.2 ____ Coordinates with CEO for path support, to include types, estimated volume, and prioritization.

.3 ____ Plans the establishment of SPINTCOMM/CRITICOMM circuit ashore in coordination with the CEO, and coordinates alternate means of routing as well.

.4 ____ Conducts COMSEC monitoring, analysis and reporting operations as directed.

.5 ____ Enters tactical and command nets as required by the MAGTF operations order.

.6 ____ Disperses/remotes communications equipment to reduce vulnerability.

.7 ____ Establishes wire communications when and where required.

.8 ____ Establishes secure communications with adjacent units when required.

.9 ____ Monitors the status of communications continuously.

.10 ____ Submits communications status reports as required.

.11 ____ Conducts destruction of CMS material per written guidance provided by CMS account custodian.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

ADHERENCE TO PLANS AND ORDERS

Unit operates on the frequencies designated and employs covered circuits. Nets are entered as specified in the communications orders of the supported MAGTF. All subordinate leaders are aware of alternate communications means, prepared to erect expedient antenna systems, and fully cognizant of the importance of communications security. Stations established as net control stations assume that responsibility with positive control over all transmissions on the nets.

11D.4 TACTICAL OPERATIONS

TASK: 11D.4.1 COLLECTION OPERATIONS

CONDITIONS:

The collection element performs collection efforts in consonance with the assignments received. Multiple elements are inputting information.

STANDARDS: 11D.4.1.1 - 11D.4.1.9
EVAL: Y; N; NE

.1 ____ Establishes collection sites.

.2 ____ Provides tasking and direction to subordinate collection positions.

.3 ____ Delivers traffic from collection positions to processing and reporting elements in a timely manner.

.4 ____ Operators notify the collection supervisor of critical intercepts immediately.

.5 ____ Operators notify the collection supervisor of equipment malfunctions immediately.

.6 ____ Operators "tip-off" targets to direction finding (DF) control as directed.

.7 ____ Maintains intercept logs using a standard format.

.8 ____ Disseminates tactical and technical reports as directed by the OCAC in a timely manner.

.9 ____ Maintains reliable, secure communications between the OCAC and collection sites.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11D.4.2 DIRECTION FINDING OPERATIONS

CONDITIONS:

The DF element of the detachment conducts DF operations in support of the MAGTF against targets of interest for the purpose of providing the locations of target emitters. It is also tasked with providing locations of enemy ECM emitters in support of meaconing, intrusion, jamming, interference (MIJI) operations.

STANDARDS: 11D.4.2.1 - 11D.4.2.9
EVAL: Y; N; NE

.1 ____ Establishes DF control and DF outstations.

.2 ____ Maintains reliable, secure communications between the DF control and outstations. (KI)

.3 ____ Establishes liaison/communications with adjacent RDF elements for participation in the MAGTF DF effort, as required.

.4 ____ Achieves not more than a 5 degree average error from a direction finder site.

.5 ____ Flashes DF targets to DF outstations. (KI)

.6 ____ Reports DF bearings to DF control in a timely manner.

.7 ____ Maintains up to date bearing and fix plots in DF control.

.8 ____ DF control reports location information to operations watch supervisor in a timely manner.

.9 ____ Maintains a standardized DF log.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

ESTABLISHMENT OF DF PLOT CONTROL AND OUTSTATIONS

The DF's are normally arranged in a net along a predetermined baseline consisting of at least three stations, one of which acts as net control. Alternatively, a central DF control, or plot control, can be used to direct such nets. The DF nets are sited carefully so that all stations of a net can mutually support the mission, and are sited as close to the FEBA as possible without jeopardizing station security. The plot control is usually collocated with a collection element of the detachment, radio battalion.

ESTABLISHMENT OF DF FLASH AND REPORTING NETS

The DF Flash net is utilized for tasking of outstations and tipping off those sites to target emitters from plot control. The reporting net is utilized by the outstations to transmit bearing data to the plot control facility. Plot control is net control of both nets. Both nets transmit in the secure mode.

TASK: 11D.4.3 PROCESSING, ANALYSIS, AND REPORTING (PAR) OPERATIONS

CONDITIONS:

The PAR element conducts data reduction, analysis, and the reporting of information derived from all collection efforts.

STANDARDS: 11D.4.3.1 - 11D.4.3.8
EVAL: Y; N; NE

.1 ____ Receives collection taskings or EEI's that must be met from G/S-2.

.2 ____ Radio battalion detachment collection manager formulates tasking for each collection site based on the capabilities of the asset.

.3 ____ Collection assets of the detachment are properly tasked.

.4 ____ Performs functional analysis on submitted data.

.5 ____ Disseminates collected combat information intelligence to the MAGTF G/S-2.

.6 ____ Analyzes, reviews, validates, edits, and compiles intelligence into the proper format, and forwards the final reports in a timely manner.

.7 ____ Maintains records to support the analysis performed.

.8 ____ Ensures that collected information is used to update the technical data bases resident in the OCAC.

EVALUATOR INSTRUCTION:

Information supporting the requirements herein are found in OH 3-2.

KEY INDICATORS: None.

TASK: 11D.4.4 ELECTRONIC COUNTERMEASURE OPERATIONS

CONDITIONS:

Radio battalion detachment ECM elements are tasked to provide jamming or electronic deception to support the scheme of maneuver.

STANDARDS: 11D.4.4.1 - 11D.4.4.10
EVAL: Y; N; NE

.1 ____ Conducts liaison with elements of the MAGTF throughout the operation to receive guidance, provide recommendations, and ensure the early identification of support requirements.

.2 ____ Receives ECM requests per the procedures published in the MAGTF SOP.

.3 ____ Coordinates with the MAGTF CEO for friendly elements of information to preclude inadvertent jamming.

.4 ____ Adheres to "positive and negative" controls established by the supported MAGTF. (KI)

.5 ____ Establishes and monitors an ECM control net. (KI)

.6 ____ Ensures organic ECM elements are correctly deployed and positioned for effective ECM support.

.7 ____ Provides appropriate mission tasking for organic ECM assets.

.8 ____ Conducts electronic warfare support measures (ESM) as necessary to conduct ECM. (KI)

.9 ____ Coordinates ECM with representatives in the S/EWCC.

.10 ____ Maintains constant communications with the S/EWCC, and external control agencies (JTF, ATF), if required.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

MAGTF ESTABLISHED ECM CONTROLS

Positive and negative controls are command management techniques to preclude interference with friendly electromagnetic systems during ECM operations. Positive control is exercised through the publication of a list of frequencies cleared for jamming and electronic deception operations, while negative control is exercised through the publication of a list of frequencies restricted from such operations. Positive and negative controls are prepared in coordination with the S/EWCC.

ECM CONTROL NET ESTABLISHED/MONITORED

To ensure that positive control is maintained for immediate starting and stopping of ECM operations, an ECM Control Net is established. This net links the ECM control with each established ECM site. Under no circumstances is ECM conducted by any site without net establishment and exercise of positive control.

Additionally a preemptive, or "Stop Buzzer", net is often established by the supported MAGTF as a remedial measure to stop ECM operations which are interfering

with friendly electromagnetic systems. This net is monitored to ensure that ECM operations are ceased immediately upon notification of interference by the affected unit.

ESM SUPPORT OF ECM OPERATIONS

ECM operations require information concerning the enemy communication and noncommunication systems in order to be effective. In ground EW operations, the required information is provided through ESM by the detachment.

To support the jamming, ESM involves:

a. Target Development. The interception, identification, and location of probable and/or confirmed receivers.

b. Target Verification. The verification of frequencies, type of service, callsigns, and locations.

c. Mission Execution. Periodic observation of target signals for adjustment of the mission.

To support the deception aspect of EW, ESM must involve the additional items:

a. Recording enemy emissions for the use in imitative deception.

b. Information on the activities of enemy ESM/SIGINT activities and capabilities for electronic deception.

TASK: 11D.4.5 COMMUNICATIONS SECURITY MONITORING AND ANALYSIS

CONDITIONS:

The radio battalion detachment is tasked to conduct COMSEC monitoring to identify vulnerabilities to threat exploitation or compromises of EEFI's and equipment/ procedural characteristics.

STANDARDS: 11D.4.5.1 - 11D.4.5.4
EVAL: Y; N; NE

.1 ____ Coordinates with the MAGTF G/S-2/3 and CEO for EEFI's.

.2 ____ Conducts COMSEC monitoring, analysis, and reporting as directed by the MAGTF.

.3 ____ Advises G/S-2/3 and CEO of identified communications insecurities and probable EEFI compromises.

.4 ____ Uses information gained from COMSEC monitoring to support electronic deception planning and execution.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11D.4.6 SPECIAL COMMUNICATIONS SUPPORT OPERATIONS

CONDITIONS:

The radio battalion detachment is tasked to provide special communications support to the MAGTF.

STANDARDS: 11D.4.6.1 - 11D.4.6.4
EVAL: Y; N; NE

.1 ____ Establishes, operates, and maintains the Force Special Communications System ashore. (KI)

.2 ____ Monitors circuit reliability.

.3 ____ Coordinates with other SIGINT/EW assets, i.e., FLTDECPGRU, CEWI Battalion, etc., as required.

.4 ____ Provides off line cryptologic communications support for the supported unit commander.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

FORCE SPECIAL COMMUNICATIONS SYSTEM

The MAGTF Special Communications System provides:

a. The MAGTF commander with timely receipt of special intelligence record communications from commands and activities external to the force.

b. A medium for exchange of technical SIGINT product between the radio battalion detachment and fixed and/or mobile SIGINT activities and elements external to the force.

c. A medium for dissemination of special intelligence to subordinate commanders, where the requirement and attendant assets for this provision exists. (Usually at the MEF level MAGTF.)

The system is comprised of:

a. Special communications terminal(s) provided from the radio battalion detachment's organic assets.

b. Communications path(s), provided by the supported MAGTF, either from organic or augmented assets.

To accomplish the above support, special communications links may be required to the below agencies or systems:

a. Commander Amphibious Task Force (CATF) or Commander Joint Amphibious Task Force (CJATF).

b. Theater or Unified Commander's Signal Intelligence Agencies, as appropriate.

c. Defense Special Security Communications System (DSSCS).

d. Fleet Operational Intelligence Broadcast System, either directly when capability exists, or through the CATF.

11D.5 CONTINUING ACTIONS BY MARINES

TASK: 11D.5.1 DISCIPLINE

CONDITIONS:

Radio battalion detachment Marines are in support of tactical operations ashore.

STANDARDS: 11D.5.1.1 - 11D.5.1.11
EVAL: Y; N; NE

.1 ____ Unit discipline is demonstrated by individual members being in control of themselves and contributing to mission accomplishment.

.2 ____ Marines take care to safeguard and clean their individual weapons daily.

.3 ____ Vehicles, etc., are given regular maintenance by the Marines assigned to operated them.

.4 ____ Marines fire their weapons in a controlled manner when engaged. Random wastage of ammunition is not tolerated by unit leaders.

.5 ____ Marines do not waste or abuse unit supplies or material.

.6 ____ Supplies are safeguarded from the enemy and from the weather, and are not scattered as litter on the terrain.

.7 ____ Marines operating radios do not expose themselves to radio detection from enemy RDF by unnecessary or repetitious message traffic. Standard prowords are used and communication checks are limited. All personnel using radios adhere to required standards of performance regardless of grade.

.8 ____ Detachment cannot be detected by enemy as a result of poor noise discipline.

.9 ____ Detachment cannot be detected by enemy as a result of poor light discipline.

.10 ____ Marines wear the prescribed uniform at all times.

.11 ____ Leaders actively promote field sanitation and personal hygiene by enforcing use of designated heads, good personal health habits, police of area, and inspection of condition of foot and body sores.

EVALUATOR INSTRUCTIONS:

With exceptions, evaluators will use the 90 percent rule (90 percent of the Marines 90 percent of the time) to determine whether requirements are being met. The exceptions will be communications, noise, and light discipline. These standards will stand literally. If a unit is located by RDF or observation as a result of noise or light, the standard cannot be considered as having been met. Evaluators must determine if the unit is violating light and noise discipline and communications procedures when no aggressors or EW support is available. This task will be evaluated over the entire exercise and evaluators will note efforts of unit leaders to improve performance and correct discrepancies.

KEY INDICATORS: None.

TASK: 11D.5.2 USE OF COVER

CONDITIONS:

Radio battalion detachment Marines are in support of tactical operations ashore. Enemy forces have direct and indirect fire, air, and EW capabilities. The enemy also has a night observation capability.

STANDARDS: 11D.5.2.1 - 11D.5.2.3
EVAL: Y; N; NE

.1 ____ Individual Marines, including vehicle drivers, demonstrate by tactical and personal example, an understanding of use of covered routes and covered positions.

.2 ____ Halted elements and vehicles do not remain in exposed locales, moving immediately into the nearest cover.

.3 ____ All individual Marines make use of available material to improve cover continuously when operating from stationary positions.

EVALUATOR INSTRUCTIONS:

Evaluator observes individual Marines and the performance of various elements within the detachment. This task is applicable throughout the exercise, as long as tactical operations are underway. Evaluator reaches a YES evaluation based on his observation that 90 percent of the Marines in the unit participate throughout the exercise with the quality of performance defined by the requirements.

KEY INDICATORS: None.

TASK: 11D.5.3 USE OF CAMOUFLAGE AND CONCEALMENT

CONDITIONS:

Radio battalion detachment Marines are in support of tactical operations ashore. The enemy forces have direct and indirect fire, air, and EW capabilities. The enemy also has a night observation capability.

STANDARDS: 11D.5.3.1 - 11D.5.3.4
EVAL: Y; N; NE

.1 ____ Individual Marines demonstrate attention to detail in camouflage paint, individual camouflage awareness, and equipment assigned to them.

.2 ____ Ensures that the principles of camouflage siting, discipline, and construction are employed continuously throughout operations.

.3 ____ Uses natural materials and camouflage screen support system to conceal positions and vehicles from enemy ground observation to a distance of 200 meters.

.4 ____ Camouflages all positions to prevent identification by enemy aircraft by employing the use of soil, fresh foliage, and netting.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

VEHICLES

- All light colored tactical markings are dulled or covered.
- All reflective surfaces are dulled or covered (mirrors and windshield removed or covered).
- Are equipped with proper camouflage netting, and garnished.

TASK: 11D.5.4 RESPONSE TO ENEMY AIR CAPABILITIES

CONDITIONS:

Radio battalion detachment Marines are in support of tactical operations ashore. The enemy, in addition to direct and indirect fire and EW capabilities, has a fixed and rotary wing capability.

STANDARDS: 11D.5.4.1 - 11D.5.4.5
EVAL: Y; N; NE

.1 ____ Unit has established procedures for both passive and active air defense.

.2 ____ Air guards are designated.

.3 ____ Marines are instructed on the supported unit's alarm system to warn of air attack.

.4 ____ If given advance warning of approaching hostile aircraft, Marines react by dispersing per established passive measures and by taking appropriate active defensive actions when attacked.

.5 ____ Reports attack by enemy air to higher command elements by flash message.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

11D.6 NBC OPERATIONS

TASK: 11D.6.1 PREPARE FOR NBC OPERATIONS

CONDITIONS:

Threat forces have employed NBC, air, and ground attacks in the area aimed at destroying/disrupting operations and facilities. Due to the threat, passive and active defense measures must be used for survival.

STANDARDS: 11D.6.1.1 - 11D.6.1.3
EVAL: Y; N; NE

.1 ____ All individual NBC defense equipment authorized the unit by T/E is issued to each individual.

.2 ____ MOPP level is established by the supported unit CO/OIC and personnel are at or above required MOPP level.

.3 ____ Marines properly identify NATO or threat NBC contamination markers.

EVALUATOR INSTRUCTIONS:

Provide the detachment information to expect an imminent nuclear attack by the enemy. Integrate NBC scenarios with normal operational activities.

KEY INDICATORS: None.

TASK: 11D.6.2 PREPARE FOR NUCLEAR ATTACK

CONDITIONS:

Detachment is informed that nuclear weapons have been used in the theater of operations. That information is relayed to subordinate commanders, staff, and attached elements.

STANDARDS: 11D.6.2.1 - 11D.6.2.11
EVAL: Y; N; NE

.1 ____ Back-up command, control and communications procedures are identified.

.2 ____ Subordinate/displaced elements are alerted (if applicable).

.3 ____ Continues mission while implementing actions to minimize casualties and damage.

.4 ____ Radio battalion detachment personnel implement protective measures, as directed by the supported unit consistent with the mission.

.5 ____ Personnel minimize exposure by rolling down sleeves, buttoning collars, and wearing additional clothing equal to a two layered uniform.

.6 ____ Personnel take cover in foxholes, bunkers, armored vehicles, existing shelters (basements, culverts, caves, tunnels, etc.), or lie prone on open ground.

.7 ____ Vehicles are placed behind masking terrain.

.8 ____ Electronic equipment is protected from EMP by removing it from exposed locations and placing it in covered/hardened locations/vehicles.

.9 ____ Personnel identify/prepare shelters from heat, blast, and radiation.

.10 ____ All loose items, flammable/explosive items, food, and water are secured/protected from heat, blast, and radiation.

.11 ____ Marines are familiar with standard first aid procedures to provide self/buddy aid for nuclear blast and thermal effects.

EVALUATOR INSTRUCTIONS:

Detachment is informed that nuclear weapons have been used.

KEY INDICATORS: None.

TASK: 11D.6.3 RESPOND TO THE INITIAL EFFECTS OF A NUCLEAR ATTACK

CONDITIONS:

Nuclear attack is simulated by the detonation of an artillery or nuclear blast simulator or by other appropriate means.

STANDARDS: 11D.6.3.1 - 11D.6.3.5
EVAL: Y; N; NE

.1 ____ Upon recognizing the attack, all personnel take immediate action to shield themselves and vital equipment from the effects of detonation.

.2 ____ Chain of command and communications are maintained or reestablished. Detachment resumes mission if possible.

.3 ____ Casualties are given first aid and are evacuated to a medical treatment station as mission permits; fatalities are evacuated to a graves registration collection point.

.4 ____ Damage assessment is submitted by secure means to the supported command element.

.5 ____ Team leaders demonstrate the ability to utilize available radiac measuring systems, and report the readings.

EVALUATOR INSTRUCTIONS:

Evaluator will assess constructive casualties due to blast, heat dazzle, radiation, and EMP. The EMP casualties will be assessed by the evaluator for all communications systems (antennas, receivers/transmitters) that are exposed (not in a covered or hardened location/vehicle) during the simulated nuclear detonation.

KEY INDICATORS: None.

TASK: 11D.6.4 PREPARE FOR A FRIENDLY NUCLEAR STRIKE

CONDITIONS:

Detachment receives a friendly nuclear STRIKWARN per FM 3-100. All, or portions of the unit, are within minimum safe distance (MSD) 2 to 3.

STANDARDS: 11D.6.4.1 - 11D.6.4.11
EVAL: Y; N; NE

.1 ____ Radio battalion detachment commander acquires pertinent information regarding the planned detonation (time of burst, ground zero, fall-out coverage, MSD, etc.).

.2 ____ Advises subordinates of the measures needed to prevent casualties, damage, and extended interference with the mission.

.3 ____ Radio battalion detachment commander keeps current on the NBC situation on behalf of his teams.

.4 ____ Radio battalion detachment commander ensures that when supported unit warns subordinate or attached elements and aircraft affected by the burst (within MSD 3 and/or fall-out zone), those warnings include deployed teams. (KI)

.5 ____ Radio battalion detachment personnel implement protective measures, as directed by the supported unit consistent with the mission.

.6 ____ Personnel minimize exposed skin by rolling down sleeves, buttoning collars, and wearing additional clothing equal to a two layer uniform.

.7 ____ Personnel take cover in foxholes, bunkers, armored vehicles, existing shelters (basements, culverts, caves, tunnels, etc.), or lie prone on open ground.

.8 ____ Vehicles are placed behind masking terrain.

.9 ____ Electronic devices are turned off; erected antennas are disassembled or are tied down.

.10 ____ All loose items (small weapons, tools, etc.) and highly flammable/explosive items (POL, ammunition, propellants, etc.) are placed in armored vehicles or shelters.

.11 ____ Deployed teams acknowledge the warning before the expected time of burst.

EVALUATOR INSTRUCTIONS:

Evaluator simulates nuclear detonation with an artillery or nuclear blast simulator, or informs the unit that nuclear blast has occurred. Evaluator assesses casualties and damage to unprotected personnel and equipment.

KEY INDICATORS:

WARNINGS

Supported unit may warn teams via the radio battalion detachment commander of an impending nuclear detonation by one of the following methods.

- Using a proword or brevity code from the CEOI to indicate the message is a nuclear strike warning.
- A brief prearranged message that directs the receiver to implement specific protective measures.
- Encoded message with expected time of burst if time allows.
- Secure voice or messenger.

TASK: 11D.6.5 PREPARE FOR A CHEMICAL AGENT ATTACK

CONDITIONS:

Radio battalion detachment commander has been informed by the supported unit that chemical weapons have been used in the theater of operations and that a chemical attack is imminent.

STANDARDS: 11D.6.5.1 - 11D.6.5.8
EVAL: Y; N; NE

.1 ____ Detachment is directed to assume MOPP consistent with mission, temperature, and work rate.

.2 ____ Mission essential tasks that require a high degree of manual dexterity or physical strength and are difficult to perform in MOPP 4 are identified. Alternate methods, such as allowing more time, rotating, or assigning additional personnel, are planned.

.3 ____ Marines determine criteria and demonstrate the capabilities for donning the protective mask and chemical protective ensemble.

.4 ____ Buddy system is established to facilitate monitoring/treatment for chemical agent poisoning and emergency decontamination.

.5 ____ Continues mission while implementing all actions to minimize casualties and damage.

.6 ____ Portions of essential equipment, food, and water supplies that cannot be placed in a shelter are covered with expendable (or readily decontaminated) tarps, shelter halves, or ponchos.

.7 ____ Detector paper is affixed to visible, horizontal surfaces of protective clothing and on equipment munitions, etc.

.8 ____ Marines demonstrate a knowledge of chemical agent symptoms.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11D.6.6 RESPOND TO A CHEMICAL AGENT ATTACK

CONDITIONS:

Detachment is subjected to a chemical agent attack. Site should support the type of training being conducted and permit the safe use of simulators and training devices.

STANDARDS: 11D.6.6.1 - 11D.6.6.11
EVAL: Y; N; NE

.1 ____ Upon hearing a chemical alarm, personnel take immediate protective measures followed by treatment/decontamination of casualties. (KI)

.2 ____ Personnel automatically mask upon notification of any enemy artillery, rocket, or air attack or overflight.

.3 ____ Personnel automatically mask upon perceiving a suspicious odor, airborne droplets/mist, or smoke from unknown source.

.4 ____ Marines do not unmask until authorized by their immediate commander. (KI)

.5 ____ Detachment is able to perform mission for at least 4 hours while in MOPP 4.

.6 ____ Type of chemical agent is identified using a chemical detector kit, and reported per operations order.

.7 ____ WIA's are wrapped, marked as contaminated, and evacuated as mission permits.

.8 ____ KIA's are wrapped, marked as contaminated, and evacuated as mission permits. Graves registration collection point is alerted.

If nonpersistent agent:

.9 ____ Unmasking procedure is followed. (KI)

.10 ____ Radio battalion detachment commander adjusts MOPP level as required.

.11 ____ Detachment is able to handle and provide first aid treatment to casualties in a chemical environment.

EVALUATOR INSTRUCTIONS:

Selected personnel are presented decontamination training kits and first aid treatment training devices to "treat designated casualties". Every attempt must be made to provide a realistic situation through devices, scenarios, or other aids developed through innovation. The key to a thorough evaluation is a realistic, well supported situation imposed by the trainer/evaluator.

CHEMICAL CASUALTIES

Chemical casualties are described as:

- Personnel without mask and hood within arms reach, without decontamination kits, or not wearing chemical protective clothing.

- Personnel not taking immediate corrective actions upon perceiving the attack, hearing a chemical agent alarm, being ordered to mask, or using incorrect masking procedures (not masking within 9 seconds), or making incorrect use of decontamination kits/first aid treatment items.

- Marines who unmask or otherwise assume a lesser degree of MOPP without being authorized to do so by the commander.

KEY INDICATORS:

UNMASKING PROCEDURES

When a detector kit is available, the following unmasking procedures will be adhered to:

a. After determining absence of agents, two or three Marines unmask for 5 minutes.

b. Marines remask and are examined in a shady area for symptoms for 10 minutes.

c. If no symptoms appear, remainder of unit may unmask.

When no detector kits are available, the following unmasking procedures will be adhered to:

a. Two or three Marines take a deep breath, hold it, break the seal on their masks, and keep their eyes open for 15 seconds.

b. Then they clear their masks, reestablish the seal and wait 10 minutes.

c. If no symptoms appear, the same Marines break the seal of their masks, take two or three deep breaths, clear and reseal their masks.

d. If after 10 minutes no symptoms have appeared, the same Marines unmask for 5 minutes and then remask.

e. If after 10 more minutes no symptoms have appeared, the rest of the unit may unmask.

TASK: 11D.6.7 PERFORM HASTY DECONTAMINATION

CONDITIONS:

Personnel and equipment have been contaminated by chemical agents. Emergency decontamination has been accomplished. Time is not available for complete decontamination. The hazard is such that hasty decontamination is required to allow the unit to continue the mission. All personnel are maintaining a maximum MOPP.

STANDARDS: 11D.6.7.1 - 11D.6.7.5
EVAL: Y; N; NE

.1 ____ Decontamination procedures are appropriate to items being decontaminated. (KI)

.2 ____ Team equipment and vehicles are decontaminated using appropriate wash-down methods.

.3 ____ Adequacy of decontamination is determined. If inadequate:

a. Procedures are repeated.

b. Decontamination support is requested.

c. Risk of using equipment is accepted.

.4 ____ Contaminated materials are discarded according to tactical SOP, marked as contaminated, and location provided to the command element.

.5 ____ Commander reduces MOPP level if appropriate.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

DECONTAMINATION PROCEDURES

Initial decontamination of unit equipment, vehicles, and crew served weapons may be accomplished by removing all gross liquid contamination with sticks or other improvised devices, which are buried after use. Follow by spraying areas with DS2 or water in a training environment.

Contaminated items that may need special decontamination treatment are:

a. POL, food, and water containers and munitions. Wash with soapy water, rinse, and thoroughly air dry.

b. Communications equipment, and other electronic equipment. Decontaminated with hot air, by weathering, or all metal parts are wiped with rags soaked with DS2 (water is used for training purposes).

c. Optical Instruments. Blotted with rags and then wiped with lens cleaning solution or organic solvent.

TASK: 11D.6.8 COORDINATE FOR DELIBERATE DECONTAMINATION OF EQUIPMENT

CONDITIONS:

Equipment has been contaminated by a chemical agent. Hasty decontamination has been accomplished. Time is available for complete decontamination. Decontamination support from a decontamination unit is available upon request.

STANDARDS: 11D.6.8.1 - 11D.6.8.4
EVAL: Y; N; NE

.1 ____ Coordination is made with the supported unit as to time of arrival, estimated time of completion, and location of decontamination site.

.2 ____ Main body arrives at MOPP gear exchange/vehicle wash-down assembly area and organizes for processing.

.3 ____ Decontamination begins as scheduled.

.4 ____ Radio battalion detachment commander adjusts MOPP level, as appropriate.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11D.6.9 EXCHANGE PROTECTIVE CLOTHING

CONDITIONS:

Wear and tear have rendered the overgarments unserviceable or the expected serviceability period has been exceeded or the protective clothing is contaminated.

STANDARDS: 11D.6.9.1 - 11D.6.9.2
EVAL: Y; N; NE

.1 ____ Contaminated clothing is removed without transfer of contamination.

.2 ____ Individuals put on new protective clothing.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11D.6.10 SCORE THE NBC EXAM

CONDITIONS:

Exam will be prepared at the higher command element level and will be completed within 30 minutes. All available personnel will take the examination.

STANDARDS: 11D.6.10.1 - 11D.6.10.10
EVAL: Y; N; NE

.1 ____ Unit averaged 10 percent or higher.

.2 ____ Unit averaged 20 percent or higher.

.3 ____ Unit averaged 30 percent or higher.

.4 ____ Unit averaged 40 percent or higher.

.5 ____ Unit averaged 50 percent or higher.

.6 ____ Unit averaged 60 percent or higher.

.7 ____ Unit averaged 70 percent or higher.

.8 ____ Unit averaged 80 percent or higher.

.9 ____ Unit averaged 90 percent or higher.

.10 ____ Unit averaged 100 percent.

EVALUATOR INSTRUCTIONS:

Standards will be marked either Y or N, as appropriate. As an example, if the team average was 76 percent, Task 11D.6.10.1 through 11D.6.10.7 would be marked Y (Yes) and the remainder would be marked N (No).

Required Data:

1. Number of personnel in unit: _____.
2. Number of personnel taking exam: _____.
3. Element average: _____.

KEY INDICATORS: None.

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*SECTION 11E

THE REMOTELY PILOTED VEHICLE (RPV) COMPANY

TABLE OF CONTENTS

*MISSION PERFORMANCE STANDARDS (MPS)

REMOTELY PILOTED VEHICLE (RPV) COMPANIES

INTRODUCTION

MCCRES mission performance standards (MPS's) contained in this volume apply to all RPV companies and establish the minimum acceptable standards to properly execute the RPV's basic missions.

The MPS's, tasks, and standards were derived from the limited amount of doctrine available (OH 2-2, Remotely Piloted Vehicle Employment) and from field recommendations from Marine Corps commands.

It is recommended that commanders use MCCRES MPS's to establish training objectives, and take every opportunity to informally evaluate their units against these standards. The system provides the commander with a tool to evaluate the combat readiness and training of his unit, to identify strengths and weaknesses, and to enable him to prioritize the unit's future training requirements.

These standards apply to RPV units in support of a MAGTF, and it is preferred that evaluations be conducted in that manner. Therein, the role of the RPV company commander to dynamically recommend the employment of assets, and for him and his unit to exhibit their efficiency in support of tactical operations will be the basis for a successful demonstration of their combat readiness.

MCCRES tasks for RPV units presuppose that personnel and logistics support are sufficient to achieve minimum acceptable standards; but it is acknowledged that sufficient people, and equipment, are not always available. The standards are written so that those sections applicable to a particular exercise or training scenario can be selected for evaluation. The unit is not penalized if they cannot attempt all standards. When other external factors contribute to limiting the unit's combat evaluation, it should be noted in the "COMMENTS" column of the evaluation sheet and recorded in the overall report.

11E.1 RPV OPERATIONS IN SUPPORT OF A MAGTF

TASK: 11E.1.1 PLAN AN RPV MISSION

CONDITIONS:

An RPV company is operating in support of MAGTF. The unit has been tasked with locating targets in support of the MAGTF and plans for the mission.

STANDARDS: 11E.1.1.1 - 11E.1.1.14
EVAL: Y; N; NE

.1 ____ Possesses and utilizes an operations SOP.

.2 ____ Acknowledges receipt of the order to higher headquarters.

.3 ____ Selects primary and alternate launch and recovery sites.

.4 ____ Ensures the intelligence analysis accurately identifies threat capabilities and friendly positions.

.5 ____ Selects Ground Control Station (GCS)/Tracking Control Unit (TCU) site appropriate to the mission.

.6 ____ Coordinates with the senior airspace coordination agency to deconflict airspace.

.7 ____ Selects reconnaissance areas, holding areas, and routes based on METT considerations and coordination with appropriate units. (KI)

.8 ____ Selects alternate reconnaissance areas, holding areas, and approach/retirement routes.

.9 ____ Plans flight altitudes based on safety, the enemy threat, and mission requirements.

.10 ____ Plans appropriate flight control modes to adequately control the flight during all phases of the mission.

.11 ____ Implements command and control procedures as established by higher headquarters with a minimum reliance on radio communications.

.12 ____ Plans for tracking control unit (TCU) emission control. (KI)

.13 ____ Ensures correct payload is selected.

.14 ____ Assigns duties to each crewman.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

METT FACTORS

1. Mission: Review to ensure thorough understanding of scope, objectives, execution, command and control, and coordination details of assigned mission.

2. Enemy: Evaluate all available intelligence information to determine enemy disposition, order of battle, and capabilities.

3. Terrain and Weather: Evaluate terrain in terms of physical characteristics and threat environment to determine approach and retirement routes. Evaluate in terms of impact on scheme of maneuver and enemy capabilities. Identify weather minimums if not previously established.

4. Troops: The location of friendly troops, safe areas, and supporting unit capabilities should be considered. Plan to over-fly safe areas whenever possible.

Use of the program mode of flight is the only way to decrease the emissions of an active RPV system. Unless mission parameters are conducive to utilization of programmed flight, emissions will be constant.

TASK: 11E.1.2 PREPARE FOR AN RPV MISSION

CONDITIONS:

An RPV company is operating in support of a MAGTF. The unit has been tasked with locating targets in support of the MAGTF and prepares for the mission.

STANDARDS: 11E.1.2.1 - 11E.1.2.8
EVAL: Y; N; NE

.1 ____ Conducts mission briefing for all crewmembers.

.2 ____ Ensures crewmembers understand specific duties and responsibilities.

.3 ____ Ensures crewmembers are briefed on the current enemy and friendly situation.

.4 ____ Briefs payload requirements.

.5 ____ Ensures aircraft receives preflight checks.

.6 ____ Ensures the flightcrew is briefed on the supported commander's information requirements.

.7 ____ Ensures aircraft emergency procedures are briefed prior to take off.

.8 ____ Ensures necessary communications are established.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11E.1.3 CONDUCT AN RPV MISSION

CONDITIONS:

An RPV company is operating in support of a MAGTF. The unit has been tasked with locating targets in support of the MAGTF and conducts the mission. Planning and preparation have been completed.

STANDARDS: 11E.1.3.1 - 11E.1.3.20
EVAL: Y; N; NE

.1 ____ Ensures each crewmember wears required clothing and safety equipment.

.2 ____ Ensures sound suppressors and goggles are used.

.3 ____ Ensures aircraft is ready for launch at plus or minus 15 minutes of the specified timeframe.

.4 ____ Checks in with the DASC prior to commencement of the flight plan.

.5 ____ Coordinates any changes to the mission plan with the appropriate airspace coordination agency.

.6 ____ Bases flying techniques on METT considerations.

.7 ____ Ensures the flight is conducted to degrade the enemy's ability to visually or electronically detect or locate the aircraft.

.8 ____ Ensures flights are flown as planned or as modified in flight by the mission commander.

.9 ____ Employ's appropriate flight control modes to adequately control the flight during all phases of the mission.

.10 ____ Ensures the crew navigates and remains oriented throughout the flight.

.11 ____ Ensures airspace conflicts are coordinated with the appropriate controlling agency.

.12 ____ Ensures crew coordination permits division of operators labor and organization of duties.

.13 ____ Ensures procedures for inadvertent entry into instrument meteorological conditions are executed as briefed.

.14 ____ Utilizes detection avoidance techniques.

.15 ____ Ensures internal pilots and payload operators monitor system performance.

.16 ____ Ensures the internal pilot and payload operator provide progress information to the mission commander during operations.

.17 ____ Ensures GCS duties (control of aircraft, radios, switch management, instrument monitoring. etc.) are coordinated between the internal pilot, payload operator, and mission commander.

.18 ____ Notifies the appropriate airspace coordination agency upon completion of the mission.

.19 ____ Ensures unsafe practices are immediately corrected and/or exposed in flight debriefings.

.20 ____ Prepares and disseminates mission summary.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11E.1.4 PERFORM SEARCH AND RESCUE MISSION

CONDITIONS:

A friendly aircraft has crashed in the tactical area of operations. Approximate location is given to the RPV company. The RPV company is tasked with locating the crash site.

STANDARDS: 11E.1.4.1 - 11E.1.4.9
EVAL: Y; N; NE

.1 ____ Plots safe areas.

.2 ____ Establishes communications with rescue operations center or controlling agency.

.3 ____ Navigates to crash site or search area.

.4 ____ Sets appropriate communications radios to T/R GUARD or switches frequency to the predesignated SAR net.

.5 ____ Employ aerial observation techniques during aerial search.

.6 ____ Locates crash site or personnel.

.7 ____ Orbits site location and gathers pertinent information for in-flight report.

.8 ____ Gives in-flight report to rescue operations center or to controlling agency and other aircraft in the search area.

.9 ____ Directs rescue aircraft to crash site/survivors' location.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11E.1.5 CONDUCT HELICOPTER ROUTE AND LANDING ZONE RECONNAISSANCE

CONDITIONS:

The RPV company is in support of a MAGTF and conducting tactical operations. The RPV company has been tasked with assisting in helicopter route and landing zone (LZ) reconnaissance.

STANDARDS: 11E.1.5.1 - 11E.1.5.3
EVAL: Y; N; NE

.1 ____ Proceeds to prospective LZ via planned helicopter routes.

.2 ____ Identifies enemy activity/installations along the route.

.3 ____ Provides adequate visual observation to determine the location, characteristics, capacity, and suitability of potential LZ's.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11E.1.6 CONDUCT BOMB DAMAGE ASSESSMENT (BDA) MISSION

CONDITIONS:

The RPV company is in support of a MAGTF and conducting tactical operations. The RPV company has been tasked with providing information concerning the effect of supporting arms fire (BDA).

STANDARDS: 11E.1.6.1 - 11E.1.6.2
EVAL: Y; N; NE

.1 ____ Proceeds to and locates the objective area.

.2 ____ Provides accurate BDA of the objective area to the appropriate controlling agency.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11E.1.7 CONDUCT ADJUST FIRE AND FIRE FOR EFFECT ARTILLERY/NGF MISSIONS ON TARGETS OF OPPORTUNITY

CONDITIONS:

An RPV company is operating in support of a MAGTF. During flight operations a payload operator identifies a target of opportunity and transmits a call for fire.

STANDARDS: 11E.1.7.1 - 11E.1.7.5
EVAL: Y; N; NE

.1 ____ Ensures employment procedures for supporting arms are included in the fire support section of the unit operations SOP or operations order per OH 6-2A.

.2 ____ Time: Upon identification of the target by a payload operator, transmit a complete call for fire within 60 seconds, send subsequent corrections within 15 seconds of HE round impact.

.3 ____ Accuracy: Target location given by the payload operator is within 200 meters of the actual location. FFE is called for when the last adjusting round is within 50 meters of target (adjust fire and FFE only).

.4 ____ Ensures correct observed fire and communications procedures are used. (KI)

.5 ____ Reports BDA/mission assessment to the firing unit, supported higher headquarters and appropriate controlling agencies as required.

EVALUATOR INSTRUCTIONS:

Evaluators will give the nature of target to payload operators.

KEY INDICATORS:

OBSERVED FIRE PROCEDURES

The payload operator determines initial target location.

- Appropriate shell/fuze combination requested.

- Appropriate surveillance and refinement (BDA) transmitted.

- No more than three adjusting rounds are used in adjust fire mission.

TASK: 11E.1.8 CONDUCT ADVANCE PARTY AND RECONNAISSANCE OPERATIONS

CONDITIONS:

The RPV company has received an order that will require its displacement. Higher headquarters has designated the general position to be occupied. A reconnaissance party has been designated.

STANDARDS: 11E.1.8.1 - 11E.1.8.5
EVAL: Y; N; NE

.1 ____ Coordinates with supported unit headquarters to ensure RPV location considerations are included in selecting system location.

.2 ____ Performs map reconnaissance.

.3 ____ Performs route reconnaissance.

.4 ____ Selects position area that enhances the accomplishment of the mission.

.5 ____ Sweeps position area.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

RECONNAISSANCE PARTY

- Establishes traffic control measures and provides information to guide the march of the main body.
- Marks new position area for ease in siting equipment.
- Provides vehicle guides, order of march, and routes into the new position for rapid occupation.

TASK: 11E.1.9 PERFORM TACTICAL MARCH

CONDITIONS:

The RPV company has received an order to move to a new position. The company commander has issued his movement order.

STANDARDS: 11E.1.9.1 - 11E.1.9.8
EVAL: Y; N; NE

.1 ____ Maintains march discipline. (KI)

.2 ____ Crosses start point on time.

.3 ____ Reports displacement to higher headquarters.

.4 ____ Designates a release point.

.5 ____ Reports reestablishment of operational capability to higher headquarters.

.6 ____ Maintains light and noise discipline.

.7 ____ Maintains convoy interval.

.8 ____ Unit executes appropriate immediate action drill when convoy comes under attack.

EVALUATOR INSTRUCTIONS:

A movement may be conducted as a road march. The movement may be conducted en route to the initial position.

KEY INDICATORS: None.

TASK: 11E.1.10 OCCUPY POSITION AREA

CONDITIONS:

The advance party has completed the reconnaissance, selection, and preparation of the new position area. The main body has arrived at the release point.

STANDARDS: 11E.1.10.1 - 11E.1.10.4
EVAL: Y; N; NE

.1 ____ Crosses release point at specified time.

.2 ____ Emplaces equipment per established priorities.

.3 ____ Locates the GCS to provide decentralized execution of RPV missions and continuous communications and coordination with supported headquarters, FSCC, and DASC.

.4 ____ Emplaces the RPV system and commences operations within 6 hours of arrival of first equipment onsite.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11E.1.11 CONDUCT INTELLIGENCE PLANNING

CONDITIONS:

An RPV company is operating in support of a MAGTF. The RPV company conducts intelligence planning on a continuing basis in order to support flight operations.

STANDARDS: 11E.1.11.1 - 11E.1.11.9
EVAL: Y; N; NE

.1 ____ Complies with unit intelligence SOP.

.2 ____ Determines the map, chart, and geodetic requirements for the company.

.3 ____ Reflects coordination with collection and dissemination activities of higher headquarters.

.4 ____ Conducts detailed briefings for the unit commander and individual Marines to inform them of the enemy situation and capabilities.

.5 ____ Ensures the reconnaissance/surveillance plan reflects a detailed definition of the supported commander's information requirements.

.6 ____ Recommends essential elements of information to the commander.

.7 ____ Disseminates intelligence information to the supported commander in a timely manner.

.8 ____ Provides target information to the supported headquarters in a continuous manner.

.9 ____ Maintains an operational situation map.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11E.1.12 CONTINUING COMMAND ACTIONS

CONDITIONS:

An RPV company is operating in support of a MAGTF.

STANDARDS: 11E.1.12.1 - 11E.1.12.13
EVAL: Y; N; NE

.1 ____ Ensures RPV operations are considered in appropriate annexes of the operations order. (KI)

.2 ____ Ensures the RRS liaison team located at the supported unit headquarters COC/FSCC provides status/mission information to GCS personnel.

.3 ____ Notifies the supported unit headquarters of all changes in RPV system location.

.4 ____ Ensures the operations officer continually monitors the flight schedule making only authorized corrections or changes.

.5 ____ Ensures the operations officer monitors crew day and flight time limitations of assigned flightcrew.

.6 ____ Ensures the mission commander is informed of current flight operations through contact with the appropriate airspace controlling agency and/or higher headquarters.

.7 ____ Ensures the RPV liaison monitors all missions in progress.

.8 ____ Ensures RPV liaison coordinates changes to RPV missions.

.9 ____ Ensures that changes to the RPV flight profile are coordinated with the appropriate controlling agency.

.10 ____ Submits required tactical reports in a timely manner.

.11 ____ Distributes reports received from outside the unit to the affected staff section or subordinate element.

.12 ____ Develops estimate of supportability and submits to the supported commander.

.13 ____ Determines equipment requirements based on supportability of the ground combat element (GCE) scheme of maneuver.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

Reference to RPV operations should appear in the following annexes of the operations order:

a. Annex A (Task Organization)

b. Annex B (Intelligence)

c. Annex C (Operations)

d. Annex D (Logistics)

e. Annex K (Communications-Electronics)

f. Annex N (Air Operations)

g. Annex R (Reports)

TASK: 11E.1.13 SCORE THE IMMEDIATE ACTION EMERGENCIES EXAM

CONDITIONS:

Classroom Atmosphere. An exam not to exceed 30 minutes will be prepared by higher headquarters. All available flightcrew personnel will take the exam.

STANDARDS: 11E.1.13.1 - 11e.1.13.10
EVAL: Y; N; NE

.1 ____ 10 percent of personnel scored 100 percent.

.2 ____ 20 percent of personnel scored 100 percent.

.3 ____ 30 percent of personnel scored 100 percent.

.4 ____ 40 percent of personnel scored 100 percent.

.5 ____ 50 percent of personnel scored 100 percent.

.6 ____ 60 percent of personnel scored 100 percent.

.7 ____ 70 percent of personnel scored 100 percent.

.8 ____ 80 percent of personnel scored 100 percent.

.9 ____ 90 percent of personnel scored 100 percent.

.10 ____ 100 percent of personnel scored 100 percent.

EVALUATOR INSTRUCTIONS:

Standards will be marked either Y or N, as appropriate. As an example, if 85 percent of personnel scored 100 percent, Task 11E.1.13.1 through 11E.1.13.8 would be marked Y (Yes) and the remainder would be marked N (No). The exam will test only immediate action emergencies.

REQUIRED DATA:

a. Number of qualified personnel in unit: ____

b. Number of personnel taking the exam:

c. Unit average: ____

KEY INDICATORS: None.

TASK: 11E.1.14 SCORE THE AIRCRAFT AND EQUIPMENT RECOGNITION EXAM

CONDITIONS:

Classroom Atmosphere. An exam not to exceed 30 minutes will be prepared by higher headquarters. All mission commanders, payload operators, internal pilots, intelligence personnel, and remote receiving station (RRS) operators will take the exam.

STANDARDS: 11E.1.14.1 - 11E.1.14.10
EVAL: Y; N; NE

.1 ____ Unit averaged 10 percent or higher.

.2 ____ Unit averaged 20 percent or higher.

.3 ____ Unit averaged 30 percent or higher.

.4 ____ Unit averaged 40 percent or higher.

.5 ____ Unit averaged 50 percent or higher.

.6 ____ Unit averaged 60 percent or higher.

.7 ____ Unit averaged 70 percent or higher.

.8 ____ Unit averaged 80 percent or higher.

.9 ____ Unit averaged 90 percent or higher.

.10 ____ Unit averaged 100 percent or higher.

EVALUATOR INSTRUCTIONS:

Standards will be marked either Y or N, as appropriate. As an example, if the unit average was 85 percent, Task 11E.1.14.1 through 11E.1.14.8 would be marked Y (Yes) and the remainder would be marked N (No).

REQUIRED DATA:

a. Number of qualified personnel in unit: ____

b. Number of personnel taking the exam: ____

c. Unit average: ____

KEY INDICATORS: None.

TASK: 11E.1.15 EVALUATE RPV MAINTENANCE

CONDITIONS:

An RPV company is operating in support of a MAGTF. A continuing maintenance effort is essential to mission accomplishment.

STANDARDS: 11E.1.15.1 - 11E.1.15.5
EVAL: Y; N; NE

.1 ____ Aircraft availability:

$$\frac{\text{("Up" aircraft)}}{\text{("On-hand" aircraft)}} \times 100 \geq 70\%$$

.2 ____ Response reliability:

$$\frac{\text{(Sorties scheduled - combat aborts)}}{\text{(Sorties scheduled)}} \times 100 \geq 70\%$$

.3 ____ Maintenance effectiveness:

$$\frac{\text{(Sorties launched - maintenance aborts}}{\text{(Sorties Launched)}} \times 100 \geq 70\%$$

.4 ____ Processes maintenance discrepancies immediately upon identification.

.5 ____ Ensures maintenance procedures are IAW current safety regulations and standards.

EVALUATOR INSTRUCTIONS:

Aircraft availability, response, reliability and maintenance effectiveness should be evaluated throughout the exercise. The company shall not be held responsible for not mission capable supply (NMCS) problems beyond its control.

KEY INDICATORS: None.

MPS 11E.2 NBC OPERATIONS

TASK: 11E.2.1 PREPARE FOR NBC OPERATIONS

CONDITIONS:

Threat forces have been reported to be capable of employing NBC munitions in the area where the RPV company is located. Due to the threat, passive and active defense measures must be used for survival of the unit.

STANDARDS: 11E.2.1.1 - 11E.2.1.9
EVAL: Y; N; NE

.1 ____ Utilizes an SOP which outlines procedures for enemy NBC strikes and reports required.

.2 ____ Ensures individual NBC defense equipment authorized by the unit table of equipment (T/E) is serviceable and issued to each individual.

.3 ____ Ensures unit NBC defense equipment (including mops, brooms, shovels, rags, etc.) authorized by unit T/E is operationally ready and distributed to designated and trained/knowledgeable operators.

.4 ____ Ensures decontamination equipment and bulk decontaminates authorized by T/E's are available and ready for transport to a decontamination area.

.5 ____ Ensures M11 decontamination equipment units are filled (water used for training).

.6 ____ Ensures NBC trained personnel are available on a 24-hour a day basis.

.7 ____ Ensures personnel thoroughly understand mission oriented protective posture (MOPP) for the control of exposure of personnel to NBC hazards.

.8 ____ Ensures personnel are at or above the required MOPP level.

.9 ____ Marines properly identify NATO or threat NBC contaminated markers.

EVALUATOR INSTRUCTIONS:

Provide the unit information to expect an imminent nuclear attack by the enemy, and integrate NBC scenarios with normal operational assignments. Evaluator(s) should be school

trained in the area of NBC Defense (MOS 57XX) or be thoroughly trained in this area as part of Evaluator's school.

KEY INDICATORS: None.

TASK: 11E.2.2 PREPARE FOR NUCLEAR ATTACK

An RPV Co is informed that nuclear attack is imminent. SOP's and/or operation orders are onhand to provide check-lists, sequence of actions, and guidance.

STANDARDS: 11E.2.2.1 - 11E.2.2.6
EVAL: Y; N; NE

.1 ____ Unit continues mission while implementing actions to minimize casualties and damage.

.2 ____ Protects vehicles and equipment by, to the maximum extent possible, emplacing behind masking terrain.

.3 ____ Identifies/prepares shelters for defense against heat, blast, and radiation.

.4 ____ Personnel minimize exposure possibilities by rolling down sleeves, buttoning collars, and wearing any additional clothing equal to a two-layered uniform.

.5 ____ Secures/protects loose items, flammable/explosive items, food, and water from heat, blast, and radiation.

.6 ____ Demonstrates proficiency in standard first aid procedures to provide self/buddy aid for nuclear blast, and thermal effects.

EVALUATOR INSTRUCTIONS:

Commander is informed that nuclear weapons have been used.

KEY INDICATORS: None.

TASK: 11E.2.3 RESPOND TO THE INITIAL EFFECTS OF A NUCLEAR ATTACK

CONDITIONS:

Nuclear attack is simulated by the detonation of an artillery or nuclear blast simulator, or by other appropriate means.

STANDARDS: 11E.2.3.1 - 11E.2.3.5
EVAL: Y; N; NE

.1 ____ Personnel take immediate action, upon recognizing the attack, to shield themselves from blast, heat of detonations by taking cover in fighting holes, bunkers, culverts, caves, tunnels, etc.

.2 ____ Maintains or reestablishes chain of command and communications. Resumes mission if possible.

.3 ____ Submits NBC-1 initial and followup reports to MAGTF headquarters. Reports are rapidly forwarded, by secure means, when possible.

.4 ____ Administers casualties first aid and evacuates to a medical treatment station as the mission permits.

.5 ____ Submits damage assessment by secure means to higher/supported command element per SOP.

EVALUATOR INSTRUCTIONS:

Evaluator will assess constructive casualties due to blast, heat, dazzle, radiation, and electromagnetic pulse (EMP). Communications systems (antennas, receivers/transmitters) that are exposed (not in a covered or hardened location/vehicle) during the simulated nuclear detonations, will be assessed as EMP casualties.

KEY INDICATORS: None.

TASK: 11E.2.4 RESPOND TO THE RESIDUAL EFFECTS OF A NUCLEAR ATTACK

CONDITIONS:

A surface or subsurface nuclear detonation has occurred. The RPV Co location is within the predicted fallout zone. The unit gets effective downwind messages at least once every 3 hours. NBC-2 report is furnished to the unit about 15 minutes after the detonation, or prepared by the unit; NBC-3 report is furnished about 45 minutes after detonation; NBC-5 report and/or contamination overlay is provided about 4 hours after the detonation.

STANDARDS: 11E.2.4.1 - 11E.2.4.8
EVAL: Y; N; NE

.1 ____ Performs mission concurrently with all other actions.

.2 ____ Advises personnel of estimated time of fallout arrival.

.3 ____ Protects equipment, munitions, POL, food, and water from fallout.

.4 ____ Takes individual protective measures to minimize fallout effects as mission permits.

.5 ____ Forwards NBC-4 reports, as required, to the higher command element.

.6 ____ Minimizes exposure while commanding officer determines if relocation to a clean area is necessary or possible. Calculates optimum time of exit.

.7 ____ Handles casualties and provides first aid treatment in a nuclear environment.

.8 ____ Assesses impact of casualties on unit mission.

EVALUATOR INSTRUCTIONS:

Commander is advised of estimated time of fallout arrival.

KEY INDICATORS: None.

TASK: 11E.2.5 PREPARE FOR A FRIENDLY NUCLEAR STRIKE

CONDITIONS:

Unit receives a friendly nuclear STRIKWARN per FM 3-3, appendix G. The RPV Co is located within minimum safe distance (MSD) zones 2 to 3.

STANDARDS: 11E.2.5.1 - 11E.2.5.11
EVAL: Y; N; NE

.1 ____ Applies the STRIKWARN accurately and completely to the situation map within 5 minutes after message receipt.

.2 ____ Makes pertinent information regarding the planned detonation (time of burst, ground zero, fallout coverage, MSD, etc.) available to personnel.

.3 ____ Advises higher headquarters on the vulnerability of the unit to the burst and residual contamination.

.4 ____ Advises commanding officer of the measures needed to prevent casualties, damage, and extended interference with the mission.

.5 ____ Implements protective measures, as directed by higher command element, consistent with the mission.

.6 ____ Increases MOPP level consistent with mission, temperature, work rate, and guidance.

.7 ____ Places vehicles behind masking terrain, as mission permits.

.8 ____ Turns off duplicate electronic devices; disassembles erected antennas; ties down antennas, as mission permits. Bare minimum radio/electronic equipment remains erected.

.9 ____ Places all loose items (small weapons, tools, etc.) and highly flammable/explosive items (POL, propellants, missiles, etc.) in vehicles or shelters.

.10 ____ Acknowledges the warning before the expected time of burst. All protective measures have been implemented.

.11 ____ Ensures personnel take cover in foxholes, bunkers, armored vehicles, existing shelters (basements, culverts, caves, tunnels, etc.), or lie prone on open ground.

EVALUATOR INSTRUCTIONS:

Evaluator simulates nuclear detonation with an artillery or nuclear blast simulator, or informs the unit that nuclear blast has occurred. Evaluator assesses casualties and damage to unprotected personnel and equipment.

KEY INDICATORS: None.

TASK: 11E.2.6 PREPARE FOR A CHEMICAL AGENT ATTACK

CONDITIONS:

The RPV Co is informed that chemical weapons have been used in the theater of operations and that a chemical attack is imminent.

STANDARDS: 11E.2.6.1 - 11E.2.6.12
EVAL: Y; N; NE

.1 ____ Implements the chemical defense SOP which addresses chemical defense/decontamination procedures.

.2 ____ Complies with increased MOPP level consistent with mission, temperature, and work rate.

.3 ____ Identifies unit tasks requiring a high degree of manual dexterity, strength, and difficulty while in MOPP 4.

.4 ____ Plans personnel rotation, or assigning additional personnel while in MOPP 4.

.5 ____ Marines demonstrate the capabilities for donning the protective mask and chemical protective ensemble.

.6 ____ Uses the buddy system to facilitate individual monitoring/treatment for chemical agent poisoning and emergency decontamination.

.7 ____ Continues mission while implementing all actions to minimize casualties and damage.

.8 ____ Covers essential equipment, munitions, POL, food, and water supplies that cannot be placed in a shelter with readily decontaminated tarps, ponchos, etc.

.9 ____ Ensures that M11's are filled and there is an available water source.

.10 ____ Erects and monitors available chemical agent alarms.

.11 ____ Uses protective NBC equipment and supplies properly and maintains equipment in a high state of serviceability.

.12 ____ Demonstrates a knowledge of chemical agent symptoms.

EVALUATOR INSTRUCTIONS:

Unit is informed that chemical weapons have been used, and that attack is imminent.

KEY INDICATORS: None.

TASK: 11E.2.7 RESPOND TO A CHEMICAL AGENT ATTACK

CONDITIONS:

The RPV company is subjected to a chemical agent attack. Site should support the type of activities being conducted and permit the safe use of simulators and devices.

STANDARDS: 11E.2.7.1 - 11E.2.7.18
EVAL: Y; N; NE

.1 ____ Responds to a chemical alarm by taking immediate protective measures followed by treatment/ decontamination of casualties. (KI)

.2 ____ Personnel mask automatically upon notification of any enemy artillery, rocket, or air attack/overflight.

.3 ____ Personnel mask automatically upon perceiving a suspicious odor, airborne droplets/mist, or smoke from unknown source.

.4 ____ Marines unmask only when authorized. (KI)

.5 ____ Performs mission for at least 4 hours while in MOPP 4.

.6 ____ Identifies type of chemical agent using available detector kit.

If persistent agent:

.7 ____ Locates and marks with NATO standard markers persistent agent contamination areas.

.8 ____ Reports location and type of contamination to the higher command element, and plots the location per FM 3-3.

.9 ____ Determines if immediate relocation to a clean area is necessary or possible and advises the higher command element.

.10 ____ Determines decontamination priorities and requests decontamination support if required.

.11 ____ Wraps, marks as contaminated, and evacuates WIA's as mission permits. Warns medical treatment facility.

.12 ____ Wraps, marks as contaminated, and evacuates KIA's as mission permits.

If nonpersistent agent:

.13 ____ Follows unmasking procedures. (KI)

.14 ____ Evacuates WIA's to the medical treatment facility as mission permits.

.15 ____ Evacuates KIA's to the graves registration collection point as mission permits.

.16 ____ Replaces expended chemical defense items as required.

.17 ____ Responds to adjusted MOPP level, as required.

.18 ____ Plans and provides first aid treatment to casualties in a chemical environment.

EVALUATOR INSTRUCTIONS:

Selected personnel are presented decontamination training kits and first aid treatment training devices to "treat designated casualties." Every attempt must be made to provide a realistic situation through devices, scenarios, or other aids developed through innovation. The key to a thorough evaluation is a realistic, believable, well supported situation imposed by the trainer/evaluator. Ninety percent of the personnel must successfully accomplish the tasks for the unit to receive a "yes" evaluation.

KEY INDICATORS:

CHEMICAL CASUALTIES

Chemical casualties are described as:

- Personnel without mask and hood within arms reach, without decontamination kits, or not wearing chemical protective clothing.

- Personnel not taking immediate corrective actions upon perceiving the attack, hearing a chemical agent alarm, being ordered to mask, or using incorrect masking procedures (not masking within 9 seconds), or making incorrect use of decontamination kits/first aid treatment items.

- Marines who unmask or otherwise assume a lesser degree of MOPP without being authorized to do so.

UNMASKING PROCEDURES

When a detector kit is available, the following unmasking procedures will be adhered to:

a. After determining absence of agents, two or three Marines unmask for 5 minutes.

b. Marines remask and are examined in a shady area for symptoms for 10 minutes.

c. If no symptoms appear, remainder of unit may unmask.

When no detector kit is available, the following unmasking procedures will be adhered to:

a. Two or three Marines take a deep breath, hold it.

b. Then they clear their masks, reestablish the seal, and wait 10 minutes.

c. If no symptoms appear, the same Marines break the seal of their masks, take two or three deep breaths, clear and reseal their masks.

d. If after 10 minutes no symptoms have appeared, the same Marines unmask for 5 minutes and then remask.

e. If after 10 more minutes no symptoms have appeared, the rest of the unit may unmask.

TASK: 11E.2.8 PERFORM HASTY DECONTAMINATION

CONDITIONS:

Personnel and equipment have been contaminated by a chemical agent. Time is not available for complete decontamination. The hazard is such that hasty decontamination is required. All personnel are maintaining a maximum MOPP.

STANDARDS: 11E.2.8.1 - 11E.2.8.9
EVAL: Y; N; NE

.1 ____ Determines extent of contamination and establishes decontamination priorities.

.2 ____ Determines level of contamination of the RPV upon return from a mission into a possible contaminated area.

.3 ____ Decontaminates individual weapons and RPV company equipment using appropriate decontamination kits.

.4 ____ Removes contaminated protective covers and decontaminates, or discards.

.5 ____ Uses appropriate decontamination procedures for items being decontaminated. (KI)

.6 ____ Decontaminates equipment and vehicles using appropriate expedient devices.

.7 ____ Determines adequacy of decontamination.

.8 ____ Discards contaminated materials according to tactical SOP, marks as contaminated, and provides locations to higher command element.

.9 ____ Responds to reduced MOPP level, if required.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

DECONTAMINATION PROCEDURES

1. If support is not available for conducting hasty decontamination, initial decontamination of unit equipment, vehicles and weapons may be accomplished by:

a. Removing all gross liquid contamination with sticks or other improvised devices, which are buried after use.

b. Utilizing M11 decontamination apparatus filled with DS2 to spray areas frequently used or touched (Water is used to simulate DS2 in a training environment.).

2. Contaminated items that may need special decontamination treatment are:

a. POL, food, water containers, and munitions. These are washed with soapy water, rinsed, and thoroughly air dried.

b. Communications equipment, electronic vans, and other electronic equipment are decontaminated with hot air, by weathering, or all metal parts are wiped with rags soaked with DS2 (Water is used for training purposes.).

c. Optical instruments are blotted with rags and then wiped with lens cleaning solution or organic solvent.

Adequacy of decontamination is determined using the chemical agent detector kit. If contamination is still present, procedures can be repeated, decontamination support can be requested, or the risk of using the equipment can be accepted.

TASK: 11E.2.9 COORDINATE FOR DELIBERATE DECONTAMINATION OF EQUIPMENT

CONDITIONS:

Equipment has been contaminated by a chemical agent. Hasty decontamination has been accomplished. Time is available for complete decontamination. Decontamination support from a decontamination unit is available upon request.

STANDARDS: 11E.2.9.1 - 11E.2.9.4
EVAL: Y; N; NE

.1 ____ Coordinates with decontamination unit for arrival time, location, supplies, equipment, and personnel support to be furnished and estimated time of completion.

.2 ____ Dispatches advance party following receipt of route clearance to personnel/equipment decontamination stations (PDS/EDS) assembly area.

.3 ____ Moves main body to PDS/EDS assembly area.

.4 ____ Responds to Adjusted MOPP level as required.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11E.2.10 EXCHANGE PROTECTIVE CLOTHING

CONDITIONS:

The protective clothing is contaminated and a suitable uncontaminated area is available.

STANDARDS: 11E.2.10.1 - 11E.2.10.2
EVAL: Y; N; NE

.1 ____ Removes contaminated clothing without transfer of contamination.

.2 ____ Changes to new protective clothing.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11E.2.11 SCORE THE NBC EXAM

CONDITIONS:

Classroom Atmosphere. An exam not to exceed 30 minutes will be prepared at the division/HQ Bn level. All available personnel will take the exam.

STANDARDS: 11E.2.11.1 - 11E.2.11.10
EVAL: Y; N; NE

.1 ____ Unit averaged 10 percent or higher.

.3 ____ Unit averaged 30 percent or higher.

.4 ____ Unit averaged 40 percent or higher.

.5 ____ Unit averaged 50 percent or higher.

.6 ____ Unit averaged 60 percent or higher.

.7 ____ Unit averaged 70 percent or higher.

.8 ____ Unit averaged 80 percent or higher.

.9 ____ Unit averaged 90 percent or higher.

.10 ____ Unit averaged 100 percent.

EVALUATOR INSTRUCTIONS:

Standards will be marked either Y or N, as appropriate. As an example, if the team average was 76 percent, Task 11E.2.11.1 through 11E.2.11.7 would be marked Y (Yes) and the remainder would be marked N (No).

REQUIRED DATA:

a. Number of personnel in unit: ____

b. Number of personnel taking exam: ____

c. Unit average: ____

KEY INDICATORS: None.

11E.3 COMMUNICATIONS

TASK: 11E.3.1 DEVELOP THE COMPANY CONCEPT FOR COMMUNICATION SUPPORT

CONDITIONS:

The RPV company is preparing a plan for employing RPV Co assets and requires a supporting communications plan. The company commander has issued his guidance.

STANDARDS: 11E.3.1.1 - 11E.3.1.4
EVAL: Y; N; NE

.1 ____ Reviews and implements annex K, contingency plans, lessons learned.

.2 ____ Identifies organic personnel and equipment assets available to support the identified needs.

.3 ____ Plans for the availability and security of required CMS material and equipment.

.4 ____ Determines types and quantities of consumable supplies (i.e., batteries, wire) required to support the operation.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11E.3.2 ESTABLISH AND OPERATE WIRE COMMUNICATIONS

CONDITIONS:

An RPV company is operating in support of a MAGTF. The company conducts an occupation of an RPV company position.

STANDARDS: 11E.3.2.1 - 11E.3.2.6
EVAL: Y; N; NE

.1 ____ Installs field telephones properly.

.2 ____ Ensures priority is given to those circuits critical to the mission.

.3 ____ Tags and protects wires from foot and vehicular traffic.

.4 ____ Checks telephones for proper operation; i.e., correct power source, CB-LB switch properly positioned and generator functions.

.5 ____ Grounds the switchboard properly.

.6 ____ Uses switchboard ring off procedures when calls are completed.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

WIRE FAILURE

If wire communications fail, the unit immediately begins trouble shooting from its end.

TASK: 11E.3.3 ESTABLISH AND OPERATE RADIO COMMUNICATIONS

CONDITIONS:

The company conducts an occupation of an RPV company position. The liaison officer is located with the supported headquarters.

STANDARDS: 11E.3.3.1 - 11E.3.3.10
EVAL: Y; N; NE

.1 ____ Selects and properly employs the proper antenna.

.2 ____ Complies with lost communications procedures.

.3 ____ Employs radio retransmission as required.

.4 ____ Employs COMSEC equipment properly and operators use correct COMSEC procedures.

.5 ____ Weatherproofs equipment.

.6 ____ Ensures all safety precautions are taken, (i.e., lithium batteries are properly used/discarded, antennas are erected properly).

.7 ____ Transmissions are brief and held to a minimum.

.8 ____ Authorized prowords, procedural phrases, and brevity codes are used.

.9 ____ Words and phrases are spoken clearly and distinctly.

.10 ____ Phonetic alphabet and phonetic numerals are used only when further clarity is required.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11E.3.4 EMPLOY COMMUNICATIONS SECURITY (COMSEC) TECHNIQUES

CONDITIONS:

Threat intelligence dictate that all possible measures be taken to prevent enemy reception or use of friendly communications.

STANDARDS: 11E.3.4.1 - 11E.3.4.13
EVAL: Y; N; NE

.1 ____ Ensures information of use to the enemy is not transmitted in the clear.

.2 ____ Uses only authorized codes.

.3 ____ Uses proper authentication/encryption procedures when required.

.4 ____ Follows the CEOI; call signs and brevity codes are used.

.5 ____ Detects all imitative messages.

.6 ____ Uses radio "High Power" only when necessary.

.7 ____ Sends low priority and routine messages by other than radio communications means when feasible.

.8 ____ Installs wire circuits every feasible opportunity.

.9 ____ Uses "beadwindow" procedures properly.

.10 ____ Employs "gingerbread" techniques.

.11 ____ Employs encryption devices to the maximum extent possible.

.12 ____ Recognizes, counters, and reports jamming activities per the operations order.

.13 ____ Employs directional antennas to the maximum extent possible.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11E.3.5 RECOVER FIELD WIRE

CONDITIONS:

The company is displacing and the previous wire circuits are no longer required.

STANDARDS: 11E.3.5.1 - 11E.3.5.2
EVAL: Y; N; NE

.1 ____ Recovers wire lines as the situation permits.

.2 ____ Ensures recovered wire is cleaned, installed on reels, tested for complete circuit, and repaired as required.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11E.3.6 CONDUCT OPERATOR MAINTENANCE

CONDITIONS:

Equipment is being operated. Operator performs PM to the maximum extent possible without taking the equipment off line.

STANDARDS: 11E.3.6.1 - 11E.3.6.4
EVAL: Y; N; NE

.1 ____ Posseses equipment record jackets and appropriate TM's.

.2 ____ Performs PM per applicable TM's.

.3 ____ Conducts routine maintenance checks.

.4 ____ Operators identify required corrective maintenance.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11E.3.7 MAINTAIN COMMUNICATIONS

CONDITIONS:

Both radio and wire communications have been established.

STANDARDS: 11E.3.7.1 - 11E.3.7.5
EVAL: Y; N; NE

.1 ____ Maintains both internal and external radio communications.

.2 ____ Maintains both internal and external wire communications.

.3 ____ Maintains battery replacement schedule.

.4 ____ Communications are maintained in an EW environment.

.5 ____ Circuit problems are reported to watch supervisors immediately.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

11E.4 CONTINUING ACTIONS BY MARINES

TASK: 11E.4.1 DISCIPLINE

CONDITIONS:

The RPV company is operating in support of a MAGTF. The enemy has indirect fire, rotary-and fixed-wing aircraft, and EW capabilities.

STANDARDS: 11E.4.1.1 - 11E.4.1.7
EVAL: Y; N; NE

.1 ____ Unit discipline is demonstrated by individual members being in control of themselves and contributing to mission accomplishment.

.2 ____ Marines take care to safeguard and clean their weapons, both individual and crew served, daily.

.3 ____ Marines do not waste or abuse unit supplies or material.

.4 ____ Supplies are safeguarded from the enemy and from the weather, and are not scattered as litter on the terrain.

.5 ____ Unit cannot be detected by the enemy as a result of poor light discipline which is maintained to the maximum extent possible.

.6 ____ Marines wear the prescribed uniform at all times.

.7 ____ Leaders actively promote field sanitation and personal hygiene by enforcing use of designated heads, good personal health habits, police of area, and inspection of foot and body sores.

EVALUATOR INSTRUCTIONS:

With exceptions evaluators will use the 90 percent rule (90 percent of the Marines 90 percent of the time) to determine whether requirements are being met. This task will be evaluated over the entire exercise and evaluators will note efforts of unit leaders to maintain and correct discipline.

KEY INDICATORS: None.

TASK: 11E.4.2 USE OF COVER, CAMOUFLAGE, AND CONCEALMENT

CONDITIONS:

Evaluator observes individual Marines within the organization. This task is applicable throughout the operation. RPV company is permitted to use available vegetation for camouflage and concealment.

STANDARDS: 11E.4.2.1 - 11E.4.2.5
EVAL: Y; N; NE

.1 ____ Where possible, equipment, tentage, radios, and vehicle parking areas are sited to take advantage of any cover provided by natural terrain features.

.2 ____ Natural camouflage materials are obtained, employed, and replaced on a regular basis.

.3 ____ Vehicles are prepared for concealment with appropriate screening material and the use of natural camouflage. (KI)

.4 ____ Equipment and tentage are provided with appropriate screening material or concealed with natural material.

.5 ____ Unit maintains light and noise discipline, to the maximum extent possible, during the hours of darkness.

EVALUATOR INSTRUCTIONS:

Evaluator reaches a YES evaluation based on his observation that 90 percent of the Marines in the unit are participating with the quality of performance defined in the requirements.

KEY INDICATORS:

VEHICLES

Must have any light colored tactical markings dulled or covered.

Must have all reflective surfaces dulled or covered (Mirrors and windshield may be removed or covered.).

TASK: 11E.4.3 PERFORM PREVENTIVE MEDICINE SERVICES

CONDITIONS:

The RPV company is in a position and facilities have been established.

STANDARDS: 11E.4.3.1 - 11E.4.3.4
EVAL: Y; N; NE

.1 ____ Inspections are conducted on a daily basis of mess, troops facilities, and head areas.

.2 ____ Actual and potential health hazards are identified.

.4 ____ Communicable diseases are identified.

.5 ____ Measures of prevention and control of diseases are recommended.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11E.4.4 CASUALTY HANDLING

CONDITIONS:

The RPV company is in support of tactical operations. Enemy fire, direct or indirect, has been received in the position area causing casualties.

STANDARDS: 11E.4.4.1 - 11E.4.4.8
EVAL: Y; N; NE

.1 ____ Unit complies with appropriate unit medical SOP.

.2 ____ Marines, including officers, who are tagged with incapacitating wounds drop where "hit."

.3 ____ Marines tagged as incapacitated do not move under their own power, but rely on other Marines to carry them.

.4 ____ Marines dealing with casualties, prior to arrival of corpsmen, demonstrate buddy aid knowledge in the treatment of fractures, penetrating wounds, sucking chest wounds, and burns.

.5 ____ Marines tagged as lightly wounded apply self aid.

.6 ____ Corpsmen annotate tags affixed to casualties with data on treatment administered prior to evacuation.

.7 ____ Marines requiring evacuation are transported by man carry, litter, vehicle, or helicopter to treatment site in a tactically sound and expeditious manner.

.8 ____ Casualty reporting begins immediately after a Marine is tagged, starting at the level of the Marine next to the wounded man and terminating at higher headquarters.

EVALUATOR INSTRUCTIONS:

Evaluator will tag casualties per the instructions of the TEC and will evaluate the response of the individual Marines designated as casualties and those who should provide aid and assistance.

KEY INDICATORS: None.

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Communication Unit

11F.1 - COMMUNICATIONS PLANNING AND PREDEPLOYMENT PREPARATION

TASK: 11F.1.1 PLAN COMMUNICATIONS SUPPORT

CONDITION(S): When in receipt of a warning order alerting them of a requirement to support a deployment, the unit has reported to higher headquarter command element for guidance in planning the operation and operational preparations have begun.

STANDARDS: EVAL: Y; N; NE

.1 ____ Advises the command element on the optimum use and prioritization of unit resources to support the concept of operations. (KI)

.2 ____ Assists command element in identifying personnel and equipment in support of liaison teams dispatched to adjacent units.

.3 ____ Remains abreast of current and anticipated tactical operations to facilitate preliminary planning.

.4 ____ Receives planning guidance from the command element.

.5 ____ Assists command element in developing the communications estimate of supportability. (KI)

.6 ____ Advises command element on establishing procedures to minimize number and duration of radio transmissions.

.7 ____ Plans and engineers the overall configuration of the unit's communications network.

.8 ____ Assists command element in refining concept of communications support based on commander's guidance.

.9 ____ Reviews the communications SOP, contingency plans, lessons learned, etc., for applicability.

.10 ____ Assists command element in validating internal and external needlines for all phases of the operation.

.11 ____ Assists command element in identifying types of information and estimated volume to be exchanged; i.e., data, voice, facsimiles, etc.

.12 ____ Assists command element in preparing recommended prioritization of communications circuits.

.13 ____ Assists in the conduct of a mission analysis for the purpose of identifying implied tasks.

.14 ____ Requests communications intelligence and information on the enemy, terrain and weather.

.15 ____ Ensure reliable communications by providing multiple communication paths.

.16 ____ Assists command elements in identifying and planning the use of alternate means of communications.

.17 ____ Assists command element in identifying geographic and/or climatic communications limitations in the operations area.

.18 ____ Assists command element in the preparation of detailed plans to support the concept of operations.

.19 ____ Employs circuit profile analysis techniques.

.20 ____ Assists in preparing the unit prioritization and allocation of shipboard communications asset requirements.

.21 ____ Plans for continuous communication redundancy.

.22 ____ Assists command element in ensuring the communications plan reflects secure voice equipment, correct key lists, and edition numbers.

.23 ____ Assists command element in contingency planning for the possible degradation or destruction of C3 assets.

.24 ____ Assists command element in planning the movement of C3 capabilities ashore.

.25 ____ Task organizes unit's and appropriate subordinate communication elements to support the mission.

.26 ____ Coordinates with external agencies as appropriate to execute communications tasks. (KI)

.27 ____ Assists command element in preparing and updating automated communications-electronics operating instructions or joint communications-electronics operating instructions (ACEOI).

.28 ____ Reviews and monitors overall communications readiness of the unit.

.29 ____ Coordinates the submission of the requests for long haul communications in support of the MAGTF command element (i.e. Fleet SATCOM, GMF SATCOM, DCS entry, FMF Mobile Command).

.30 ____ Ensures that the plan for communications/electronics maintenance supports the communications plan.

.31 ____ Ensures message distribution is planned to include distribution to elements deployed ashore per the communications SOP.

.32 ____ Assists command element in developing a COMSEC plan.

.33 ____ Assists command element in coordinating the use of COMSEC equipment and materials to include inter-thearter COMSEC packages based on commander's guidance.

.34 ____ Assists command element in coordinating the integration of air control assets into the overall C3 network.

.35 ____ Assists command element in identifying communication interoperability problems with naval, joint, or combined forces.

.36 ____ Advises command element on Command Post internal/external power distribution requirements.

.37 ____ Uses and applies HF prediction computer software (e.g. Prophet) for requesting, assigning, and coordinating HF frequency usage.

.38 ____ Uses and applies VHF cosite prediction computer software (e.g. Prophet) for requesting, assigning, and coordinating VHF frequency usage.

.39 ____ Assist command element and subordinate elements to develop a comprehensive spectrum management plan.

.40 ____ Determine adequacy of MPS to support mission needs, if conducting MPS supported operations.

EVALUATOR INSTRUCTIONS: The focus of this task is on the functioning of the unit commander/staff as they fulfill their planning responsibilities in support of command element deployment or displacement. Planning responsibilities fall into two major categories; planning assistance rendered the command element, and that planning necessary to prepare unit elements for their operational support role. Planning activity covers deployment from CONUS to AOA, displacement within AOA, deployment to another AOA.

KEY INDICATORS:

ESTIMATE OF SUPPORTABILITY

An estimate of supportability will be prepared against which contemplated courses of action will be analyzed. Written estimates generally are prepared during planning for complex operations. Once operations have begun, mental estimates are made when a new item of information is considered significant, and then presented to the commander and other staff officers, as required. In either event, the estimate should include a consideration of the following:

1. Weather, terrain and transportation network in the operations area that affect communications-electronics.

2. The enemy situation and its impact on communication support of the tactical mission.

3. Tactical situation.

4. Personnel situation to include availability, strength, and replacements.

5. Logistics situation to include availability and condition of equipment, and availability of repair parts and consumable items.

6. Information regarding current or contemplated communications installations and the location and mission of communications and control agencies.

7. Availability and assignment of radio frequencies, assignment of call signs, availability of shipboard communication for troop use, communication guard, traffic volumes, crypto matters, etc.

8. Availability of host Nation communications support (fixed plant radio, telephones, teletype, long haul systems, etc.)

EXTERNAL AGENCY COORDINATION

The highly sophisticated nature of tactical communications necessitates extensive coordination among force elements and with agencies external to the force. Such coordination may include assisting with the submission of ground mobile forces (GMF) SATCOM requirements, DCS HF entry/termination requests, and common user digital information exchange subsystem (CUDIXS) terminations. Coordination requirements include the need to ensure mutual understanding of all of the technical terminology by all agencies involved.

TASK: 11F.1.2 PREPARE UNIT FOR DEPLOYMENT

CONDITION(S): The unit is in receipt of tasking to provide communications support for a deployment.

STANDARDS: EVAL: Y; N; NE

.1 ____ Acknowledges receipt of operational tasking.

.2 ____ Prepares personnel for deployment. (KI)

.3 ____ Requests personnel replacements.

.4 ____ Conducts training relative to mission assignment.

.5 ____ Adjusts maintenance priorities to bring all equipment earmarked for deployment to an operational status using operational ready float (ORF) if required.

.6 ____ Identifies critical low density repair items and major communication end items for usage and maintenance support.

.7 ____ Conducts pre-deployment LTI on equipment supporting operation.

.8 ____ Conducts priority follow-up actions on requests for equipment and supplies needed for deployment.

.9 ____ Determines equipment density lists and availability of equipment to be deployed.

.10 ____ Redistributes equipment and supplies per the established priorities.

.11 ____ Determines logistics requirements for each deploying unit element.

.12 ____ Submits logistics requirements to command element.

.13 ____ Communications Battalion request authorized medical allowance list (AMAL).

.14 ____ Communications Battalion request medical intelligence.

.15 ____ Prepares the personnel/equipment for air and/or sea movement.

.16 ____ Issues detailed instructions to deploying unit elements to support the annex K.

.17 ____ Ensures the supply block contains essential spare parts and consumables.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

DEPLOYMENT OF PERSONNEL

Screens personnel for medical, dental, fiscal, and administrative requirements.

11F.2 COMMUNICATIONS INSTALLATION

TASK: 11F.2.1 RECONNOITER COMMUNICATIONS SITES

CONDITION(S): The communication element has been tasked to support a reconnaissance effort preliminary to the establishment of a command post within an area of operation.

STANDARDS: EVAL: Y; N; NE

.1 ____ Designates communications representatives to participate in the reconnaissance team and allocates requisite equipment.

.2 ____ Briefs reconnaissance team communications representative(s) on the missions and functions in support of the command element site reconnaissance effort and on the friendly and enemy situation.

.3 ____ Advises command element headquarters commandant on main body convoy route communications requirements/limitations.

.4 ____ Considers and advises on communications aspects of the terrain in site reconnaissance.

.5 ____ Advises command element on siting of communications equipment and the possible use of retransmission sites or relay points.

.6 ____ Tests radio frequency (RF) communications from proposed sites (EMCON and equipment permitting).

.7 ____ Coordinates with Headquarters Commandant the locations of operations area, bivouac and support areas within the command element perimeter. (KI)

.8 ____ When placing ordnance and communication-electronic equipment in proximity to each other was the hazards of electromagnetic radiation to ordnance (HERO) considered.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

SITING OF COMMUNICATIONS EQUIPMENT

1. In conjunction with command element, selects site for:

   a. Communication center.

   b. Tactical automatic switching center (TASC).

   c. Technical control facility.

   d. Operation systems control facility.

   e. Radio equipment and antennas.

When selecting a radio equipment and antenna site, the following should be considered:

a. Favorable propagation conditions. For operation at frequencies above 30mhz, a location that gives a clear line-of-site communication path, should be selected. In dense foliage, antennas should be located above the growth or on a clearing. Transmission over open terrain or along open river valleys is desirable. Since in the VHF band, relatively larger change in signal strength can be realized from small changes in antenna location, it may be necessary to try various locations in an effort to determine the position from which best results can be obtained.

b. Available commercial or MEP power and placement of power sources.

c. Ability to employ terrain masking to eliminate or minimize the possibility of enemy interception or effects of enemy electronic countermeasures.

d. Length of remote lines and the terrain over which they pass, security and accessibility for line troubleshooting.

e. Physical control of personnel and equipment.

f. Available cover and concealment.

g. Area defensibility.

h. Access to roads for equipment introduction to site and for logistics support.

i. Located away from steel bridges, water towers, power lines and manmade objects that will adversely affect radio communications.

Location of antennas, communications center, oscc/techcon, switchboard, generators, maintenance facility, logistics area must be accessible and convenient for use.

BATTALION BIVOUAC AND SUPPORT AREAS

In laying out the command post area, provisions should be made for the following.

1. Working areas for commanders, staff, and other personnel not directly engaged in communications watch duty.

2. Officer/troop billeting.

3. Motor pool of sufficient size to allow for vehicle dispersion and located such that established road network can be used for vehicular traffic.

4. Battalion/Squadron aid station with unimpeded access to road network and helicopter landing pad.

5. Explosive ordnance and other hazardous material storage away from troop activity.

6. Defensive positions supportive of the command post ground defense system.

TASK: 11F.2.2 DEPLOY TO/OCCUPY TACTICAL SITES

CONDITION(S): The reconnaissance is complete and the command element has directed unit movement and site occupation.

STANDARDS: EVAL: Y; N; NE

.1 ____ Prepares a movement order.

.2 ____ Distributes embarkation loads to prevent overloading of vehicles.

.3 ____ Divides vehicles/end items into manageable serials.

.4 ____ Establishes and carries out a prioritization plan for equipment movement.

.5 ____ Distributes critical personnel throughout the convoy.

.6 ____ Coordinates convoy movement and security with command element.

.7 ____ Briefs convoy drivers and personnel. (KI)

.8 ____ Maintains convoy speed and separation requirements.

.9 ____ Establishes radio communication among convoy elements consistent with EMCON.

.10 ____ Conducts convoy security stops if the tactical situation dictates.

.11 ____ Deploys security teams during stops.

.12 ____ Maintains communications between main body and serials.

.13 ____ Maintains communications on tactical circuits

.14 ____ Responds to NBC, air, and ground attack per unit contingency plans/SOP's.

.15 ____ Initiates immediate site security (ground and air) during initial site occupation.

EVALUATOR INSTRUCTIONS: See MCO 3501.7A, MCCRES Vol VI, sections 6C.2 and 6C.3 for more detail if required.

KEY INDICATORS:

BRIEFS PERSONNEL

Briefs convoy drivers and other personnel on the following:

1. Contingency plans for NBC, air and ground attacks.
2. Vehicle to vehicle communication using hand/arm, light signals, or radios.
3. Primary and alternate routes.
4. Speed and separation requirements.
5. Assigns specific security watch zones for ground/air attack to personnel within the convoy.
6. Issues frequencies and callsigns as required.

TASK: 11F.2.3 INSTALL SINGLE CHANNEL RADIO (SCR) NETS

CONDITION(S): The unit has reached the designated site and is preparing to establish single channel radio communications per annex K of the Operations Order.

STANDARDS: EVAL: Y; N; NE

.1 ____ Selects correct antennae for the radio mission. (KI)

.2 ____ Sites equipment and antennae per the unit SOP.

.3 ____ Properly installs radios and erects antennas.

.4 ____ Installs radio wire pathways.

.5 ____ Uses appropriate COMSEC per higher headquarters guidance.

.6 ____ Ensures equipment is properly grounded.

.7 ____ Activates radio nets per the radio plan.

.8 ____ Establishes watches with qualified personnel in sufficient quantity to sustain prolonged operations.

.9 ____ Performs preventive maintenance on equipment.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

ANTENNA SELECTION CRITERIA

The following general criteria describing types of antennae, can be used to select the correct antenna for the assigned radio mission:

1. Whip/tape: Omnidirectional, used for short distances (15-30 miles nominal line of sight) VHF/HF, and, greater than 150 miles HF, depending on selection of the proper frequency. (AS-1729, AS-2447, AS-2956, AT-271A, AT-892, AT-1001)

2. Inverted V: Dual-lobed bidirectional, effective for distances of 100 to 500 miles.

3. Sloping V: Directional, effective for skywave distances in excess of 1000 miles depending on selection of the proper frequency.

4. Folded Dipole: Omnidirectional or dual-lobed bidirectional, depending on the height above electrical ground. At one half wavelength or higher it is bidirectional and effective for distances of 300 to 1000 miles. At one quarter wavelength or less it is omnidirectional NVISW for distances of 30 to 300 miles. (AS-2259).

5. Long Wire: Bidirectional, used for distances of 25 miles and longer, can be directional with a terminating resistor. This is somewhat dependent on length and distance above electrical ground. The antenna radiates off the ends when one eighth wavelength above electrical ground. The longer the antenna, the more directive.

6. Log Periodic: Directional, used for distances of 25 to 100 miles. (AS-2236, AS-2851, AS-3047, OE-85). Field Expedient: ECAC-CR-83-200, Field Antenna Handbook offers guidance on use and construction of field expedient antennas.

7. Horizontal Polarized HF antennas: Omi-, or bidirectional, used in jungle or inaccessible mountainous terrain for short haul tactical operations up to 250 miles. Operates in the near vertical incidence skywaves (NVIS) or high angle skywave propagation mode using vertical takeoff angles of 0 to 90 degrees to negotiate obstacles.

See ECAC, Field Antenna handbook page 38 and 40 for models and frequency limitations diagram.

INSTALLS RADIOS/ERECTS ANTENNAS

1. Ensure warning signs are in place where necessary, in languages appropriate to the operating area.

2. All radios will be installed with crypto hardware, per annex K.

TASK: 11F.2.4 INSTALL COMMUNICATION CENTER(S)

CONDITION(S): The unit has reached the designated site and is preparing to establish the Communications Center(s) per the annex K of the Operations Order.

STANDARDS: EVAL: Y; N; NE

.1 ____ Erects the communications center facility.

.2 ____ Installs communications center terminals.

.3 ____ Establishes internal procedures per the communications SOP and Annex K.

.4 ____ Performs equipment operational checks.

.5 ____ Activates circuits as directed by OSCC.

.6 ____ Establishes communications center perimeter security, as required. (KI)

.7 ____ Ensures equipment is properly grounded.

.8 ____ Coordinates procedures for message handling with MAGTF staff.

.9 ____ Performs preventive maintenance on equipment.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

COMMUNICATIONS CENTER PERIMETER SECURITY

The communications center will have at least a two roll high concertina wire fence around the entire complex with an entrance that is not in direct line with the main access to the center. The perimeter will be marked at periodic intervals with prominent RESTRICTED AREA signs.

TASK: 11F.2.5 INSTALL WIRE SYSTEM/TACTICAL AUTOMATIC SWITCHING SYSTEM (TASS)

CONDITION(S): The unit has reached the designated site and is preparing to establish wire system/TASS communications per annex K of the Operations Order.

STANDARDS: EVAL: Y; N; NE

.1 ____ Sets-up the main distribution frames (MDF) for both red and black wire systems.

.2 ____ Installs communication pathways to/from the MDF.

.3 ____ Installs subscriber lines from the MDF.

.4 ____ Installs/activates the switching systems.

.5 ____ Integrates multichannel radio system with cable system.

.6 ____ Ensures equipment/cables are properly grounded.

.7 ____ Installs appropriate radio remote lines from the MDF.

.8 ____ Installs wire lines and cable to maximize communications efficiency and survivability. (KI)

.9 ____ Provides selected subscribers a precedence/pre-emption capability as prescribed in the communications annex or telephone service order.

.10 ____ Installs radio wire interface (RWI) as required by annex K.

.11 ____ Performs preventive maintenance on equipment.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

WIRE/CABLE INSTALLATION

1. Wire lines and routes should not follow the main supply route (MSR) unless a pole line is available for overhead construction or a cable trenching machine is available for burial. When wire lines are installed across roads, they should be overhead at least 18 feet or buried at a depth of at least 8 inches. A conspicuous flag or panel should be secured to the center of spans over roadways. Long spans should be marked every 50 feet.

2. Assault cable or locally fabricated telephone cable should be used to connect the switchboard to a terminal/frame away from major areas of congestion in the command post area. This reduces communication personnel foot traffic in the command post area and enhances maintenance, security and efficiency.

3. All internal command post wire installations should be buried or overhead.

4. All wires should be tagged for circuit/telephone number identification.

5. Assault cable/wire lines should be physically separated from and where possible, run at right angles to mobile electric power cable.

TASK: 11F.2.6 INSTALL UHF MULTICHANNEL RADIOS

CONDITION(S): The unit has reached the designated site and is preparing to establish multichannel radio communications per Annex K of the Operations Order.

STANDARDS: EVAL: Y; N; NE

.1 ____ Sites equipment within tactical and technical considerations and communications plan.

.2 ____ Installs UHF multichannel radio (MUX).

.3 ____ Polarizes antennas as specified in the annex K.

.4 ____ Installs terrestrial SHF MUX.

.5 ____ Installs GMF satellite.

.6 ____ Ensures equipment is properly grounded.

.7 ____ Integrates multichannel radio system with cable system.

.8 ____ Uses appropriate COMSEC per command element guidance.

.9 ____ Conducts loop-back checks after wire lines have been connected to the radio vehicle to ensure that the local system is complete.

.10 ____ Conducts subscriber-to-subscriber checks in both directions after installation of wire lines.

.11 ____ Performs preventive maintenance on equipment.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

GROUNDING OF EQUIPMENT

None.

TASK: 11F.2.7 ESTABLISH THE OPERATIONAL SYSTEM CONTROL CENTER

CONDITION(S): The unit has reached the designated site and OSCC is directing the installation and providing technical guidance, per the annex K of the Operations Order.

STANDARDS: EVAL: Y; N; NE

.1 ____ Maintains continuous awareness of the commander's plan of operation and resulting communications requirements.

.2 ____ Ensures all circuit activations are in consonance with command element communications plan.

.3 ____ Maintains awareness of communication system status and of personnel and equipment performance.

.4 ____ Provides and maintains information for systems planning and engineering (SPE).

.5 ____ Prepares and issues directives and instructions to subordinate communications elements, as required.

.6 ____ Identifies and corrects system inadequacies and procedural deficiencies.

.7 ____ Directs the local TECHCONAC.

.8 ____ Maintains files and logs and prepares reports per annex K.

.9 ____ Maintains current status boards/displays as prescribed.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11F.2.8 ESTABLISH THE TECHNICAL CONTROL FACILITY

CONDITION(S): The unit has reached the designated site and is preparing to establish the TECHCON facility per annex K of the Operations Order.

STANDARDS: EVAL: Y; N; NE

.1 ____ Installs the internal main distribution frame (MDF).

.2 ____ Ensures that equipment is properly grounded.

.3 ____ Provides connectivity to all external communication links.

.4 ____ Establishes communications with higher, adjacent, and subordinate technical control facilities.

.5 ____ Coordinates with senior, subordinate, and adjacent TECHCONFAC's in the exercise of technical supervision over common circuits.

.6 ____ Provides circuit path/communications connectivity as directed by OSCC.

.7 ____ Provides continuous circuit quality testing and circuit conditioning as required.

.8 ____ Maintains files and logs and prepares reports per local SOP/annex K.

.9 ____ Maintains circuit and traffic diagrams per local SOP/annex K.

.10 ____ Ensures compliance with restoration priorities per local SOP/annex K. Keeps OSCC informed of circuit availability and circuit status on all circuits under its control.

.11 ____ Informs OSCC of major communication equipment malfunctions and circuit outages within time limits given in the annex K/SOP.

.12 ____ Determines reason for outage (RFO).

.13 ____ Directs the use of appropriate troubleshooting procedures/teams to isolate faulty terminal equipment and signal paths.

.14 ____ Monitors frequencies prior to assigning or changing frequency for actual utilization.

.15 ____ Provides for circuit restoral, as directed by OSCC, by substituting equipment through patching or appropriate coordination with remote communication facilities.

.16 ____ Maintains capability to establish alternate signal paths when primary paths are disrupted.

.17 ____ Directs corrective maintenance of equipment.

.18 ____ Executes diagnostic routines of digital switches.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

TASK: 11F.2.9 ESTABLISH MOBILE ELECTRIC POWER GENERATING SYSTEM (MEPGS)

CONDITION(S): OSCC has directed that generator power be provided to all locations per priorities, per local instructions.

STANDARDS: EVAL: Y; N; NE

.1 ____ Determines power requirements.

.2 ____ Ensures positioning of generator equipment at predetermined sites.

.3 ____ Directs installation of power cables to required locations ensuring that power cables do not pose an electromagnetic threat to existing communications lines.

.4 ____ Coordinates the availability of sufficient quantities of fuel and oil for internal communications requirements.

.5 ____ Ensures equipment is properly grounded.

.6 ____ Ensures adequate electrical protection is provided (circuit breakers).

.7 ____ Ensures the MEPGS allows for balanced and stable electrical power.

.8 ____ Ensures there is an immediate power backup source available.

.9 ____ Establishes and practices procedures for restoration of power in the event of an outage. (Follow established procedures).

.10 ____ Ensures adherence to safety procedures. (Fire protection and safety equipment and procedures are in place).

.11 ____ Performs preventive maintenance on all equipment.

.12 ____ Ensures organic MEP capability is available when required.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

11F.3 COMMUNICATIONS OPERATIONS

TASK: 11F.3.1 OPERATE SINGLE CHANNEL RADIO (SCR) NETS

CONDITION(S): The single channel radio network has been activated per unit sop and ACP-125 and the Operations Order.

STANDARDS: EVAL: Y; N; NE

.1 ____ Establishes operator/supervisory positions and assigns personnel to positions to operate and maintain radio equipment.

.2 ____ Establishes field radio message center/procedures.

.3 ____ Performs operator preventive maintenance on equipment.

.4 ____ Maintains and operates crypto hardware/software.

.5 ____ Troubleshoots equipment as required.

.6 ____ Executes operational directions of OSCC.

.7 ____ Executes technical directions of TECHCON.

.8 ____ Executes electronic counter-counter measures (ECCM) to be taken in event of enemy jamming or deception.

.9 ____ Maintains circuit logs per unit SOP.

.10 ____ Maintains circuit status report per unit SOP.

.11 ____ Demonstrates correct radio telephone procedures, use of authentication systems, numerical encryption and use of operational codes.

.12 ____ Ensures, as net control station (NECOS), net discipline and minimizes outages. (KI)

.13 ____ Conducts over the air transfer (OTAT) and over the air rekey (OTAR) as required.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

NET DISCIPLINE

Each net control station (NECOS) is responsible for:

1. Determining that each transmitter and receiver is tuned to the exact assigned operating frequency.

2. Expediting the flow of message traffic on the net.

3. Maintaining circuit discipline.

4. Complying with BEADWINDOW and GINGERBREAD procedures.

5. Limiting transmissions to the minimum essential for mission accomplishment.

6. Imposing and lifting radio silences, when directed.

7. Informing TECHCON of circuit outages.

TASK: 11F.3.2 OPERATE COMMUNICATIONS CENTER(S)

CONDITION(S): The communications center(s) has/have been established per the Operations Order and is receiving, transmitting, and distributing messages per NTP-4 and ACP-126 and JANAP-128.

STANDARDS: EVAL: Y; N; NE

.1 ____ Provides local security for the communications center as prescribed in unit SOP.

.2 ____ Complies with existing physical and communications security instructions.

.3 ____ Maintains records, files, and logs, per unit SOP. (KI)

.4 ____ Maintains communications center access list containing the names of all personnel who possess the proper clearance and need-to-know for access to the facility.

.5 ____ Accepts authorized outgoing messages and determines method of delivery.

.6 ____ Prepares and checks outgoing traffic for transmission. (KI)

.7 ____ Selects appropriate circuits and transmits outgoing messages.

.8 ____ Distributes outgoing (has been sent) messages per the routing instructions.

.9 ____ Receives incoming messages.

.10 ____ Checks incoming messages to ensure message quality and completeness.

.11 ____ Processes and responds to service messages.

.12 ____ Distributes incoming messages per the routing instructions.

.13 ____ Provides over-the-counter message delivery service as directed in the annex K.

.14 ____ Maintains status of circuits and terminal equipment.

.15 ____ Maintains liaison with organic communication control facilities (OSCC/TECHCON) on circuit performance, outages, and restoration.

.16 ____ Maintains awareness of the availability and status of electrical and physical transmission means.

.17 ____ Participates in contingency alternative routing plan (CARP) as required.

.18 ____ Performs message relay functions as required.

.19 ____ Processes messages requiring special handling per the NTP-3 and provides security per provisions of CSP-1 and OPNAVINST 5510.

.20 ____ Maintains a system for message accountability to prevent loss, delay (speed of service), or nondelivery. (KI)

.21 ____ Performs preventive maintenance on equipment.

.22 ____ Supervises the message classifications and precedence assignment procedures.

.23 ____ Conduct OTAT/OTAR as required.

EVALUATOR INSTRUCTIONS: The minimum clearance necessary for admittance to Communication Center is Secret. Proof of clearance must be shown upon entry.

KEY INDICATORS:

MAINTAINS RECORDS, FILES, AND LOGS

As a minimum, the following should be maintained:

RECORDS

1. COMM Center Officer's Readboard: A copy of each message processed by the communication center is maintained to apprise the Communication Center Officer of the quality of messages being processed.

FILES:

1. Master File: This file consists of the Master Copy of each message received and transmitted by the Communication Center.
2. Readdressal Messages: A copy of each DTG is filed for readdressal messages.

LOGS:

1. COMM Center Log Outgoing: This log identifies specific messages accepted for transmission by the communication center. Message date-time-group and station serial number follow-up procedures.
2. Teletype Circuit Log: This is a chronological record of all messages transmitted and received by the communication center over a particular circuit.
3. Pick-up Log: Records message pick-up activity.
4. Access Log: A record of all visitors admitted to the communication center who are not listed on the access list.
5. CWO Log: Records a chronological account of pertinent events occurring during a CWO watch.

PREPARE OUTGOING TRAFFIC

Upon acceptance and logging of a message for transmission verification of pick up/delivery authority is verified, a format check is performed and a distribution routing indicator is assigned, and the means of transmission is determined. The message is then formatted for transmission and converted into the transmission medium. The header and trailer are again proof-read for accuracy, corrected as required, logged out and then transmitted. Receipt by addressee is verified.

SPEED-OF-SERVICE OBJECTIVES

The total elapsed communication handling time is the in-house processing time from receipt to transmission and should be within the following guidelines:

FLASH	"Z"	As fast as possible with an objective of less than 10 minutes.
IMMEDIATE	"O"	30 minutes.
PRIORITY	"P"	3 hours.
ROUTINE	"R"	6 hours.

TASK: 11F.3.3 OPERATE WIRE SYSTEM/TASS

CONDITION(S): The wire system/TASS has been activated and subscribers are utilizing the system.

STANDARDS: EVAL: Y; N; NE

.1 ____ Provides operator assistance when difficulty is encountered in completing calls.

.2 ____ Provides access for security monitoring when directed.

.3 ____ Establishes conference calls as required.

.4 ____ Maintains files and logs per unit SOP.

.5 ____ Maintains current telephone traffic diagram.

.6 ____ Maintains current technical information (cut sheets, etc.).

.7 ____ Maintains all local wire lines terminating in the switching facility.

.8 ____ Refers trouble calls to the trouble desk.

.9 ____ Keeps organic communication control facilities (OSCC/TECHCON) apprised on matters pertaining to the performance of switching equipment and circuits, including volume, line capacity, and other subscriber handling requirements and capabilities.

.10 ____ Revises telephone directory and programs subscriber directory information into the operation of switching equipment as directed by OSCC.

.11 ____ Performs preventive maintenance on equipment.

.12 ____ Submits wire/TASS reports to OSCC per unit sop.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11F.3.4 OPERATE UHF MULTICHANNEL RADIOS

CONDITION(S): The multichannel radio network has been installed and activated per the Operations Order.

STANDARDS: EVAL: Y; N; NE

.1 ____ Reports immediately all equipment failures to the local OSCC.

.2 ____ Performs restoration actions (change or move equipment or frequencies, etc.), as directed by TECHCONFAC.

.3 ____ Identifies UHF multichannel links by link number.

.4 ____ Monitors channel quality. (KI)

.5 ____ Maintains daily multichannel circuit log at each operating multichannel terminal.

.6 ____ Performs preventive maintenance on equipment.

.7 ____ Troubleshoots equipment as required.

.8 ____ Conducts OTAT/OTAR as required.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

MONITOR CHANNEL QUALITY

Monitoring by the operator is done in conjunction with TECHCON to ensure that the data channels are capable of transmitting data, and the voice channels are capable of passing voice communications.

TASK: 11F.3.5 CONDUCT COMMUNICATIONS SECURITY

CONDITION(S): Communications circuits are operational and the enemy has demonstrated the ability to exploit, deceive or destroy friendly communications systems to his advantage.

STANDARDS: EVAL: Y; N; NE

.1 ____ Maintains physical security of COMSEC materials per CSP-1.

.2 ____ Uses only authorized COMSEC materials.

.3 ____ Uses numerical cipher/authentication systems on unsecured voice communications circuits.

.4 ____ Posts and uses BEADWINDOW procedures and essential elements of friendly information (EEFI) to correct unsecured radio and telephone communications practices per NTP-4. (KI)

.5 ____ Posts and uses GINGERBREAD procedures in the event of suspected imitative communications deception (ICD).

.6 ____ Employs proper radio telephone procedures as prescribed in ACP-125.

.7 ____ Uses on-line secure voice cyphony equipment to the maximum extent possible within the priorities for its use established in the communications plan.

.8 ____ Protects all data communications with on-line encryption.

.9 ____ Recognizes and reports suspected enemy electronic countermeasure (ECM) activity.

.10 ____ Submits meaconing intrusion jamming interference (MIJI) reports and frequency interference report (FIR) as prescribed in the communications plan.

.11 ____ Applies appropriate anti-jamming measure when unable to work through jamming. (KI)

.12 ____ Maintains an emergency action plan for COMSEC equipment and materials.

.13 ____ Ensures that all communications operators are aware of procedures to follow in case enemy electronics counter measures are temporarily successful in disrupting communications.

.14 ____ Maintains/destroys COMSEC material per directions published in CMS-4 and the emergency action plan.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

BEADWINDOW PROCEDURES

BEADWINDOW reports should be issued immediately by the net control station (NECOS) (or other station) to any station that discloses an EEFI on an unsecured circuit. Report format should be as follows (call sign of the violating station) this is (call sign of the reporting station), BEADWINDOW (EEFI number), OVER i.e., "C11 this is F2H BEADWINDOW 6, OVER." The violating station MUST reply as follows (reporting station) THIS IS (violating station), ROGER OUT. Following the voice report, a separate, hasty report must be provided to the commander/chain of command to alert cognizant authorities of possible information compromise. This report should include: Date, Time, commands involved, net over which disclosure was made, and what was disclosed. Normally, the radio supervisor will provide the hasty report to the COC watch officer for further evaluation.

ANTI-JAMMING MEASURES

System operators should not reveal in the clear the possibility of enemy jamming. On all communications nets operators should:

1. Remain calm.
2. Continue to operate on primary frequency.
3. Report the interference incident to the watch supervisor.
4. Transmit high priority messages on another net or via courier if possible. If message cannot be transmitted, watch supervisor will advise drafter of the delay.
5. Observe proper radio discipline at all times.
6. Adjust the fine tuning/volume control in an effort to minimize jamming.
7. Reorient or resite the antenna, or change its polarization.
8. Increase transmitter power.
9. Speak slowly and shorten transmission. On unsecured voice nets the following additional measures should be taken if (a) through (i) above are unsuccessful:
   a. Net control station (NECOS) should conduct a listening check on one or more of the alternate frequencies to locate a usable frequency.
   b. NECOS should then direct all stations to move to the new frequency. This notification should be transmitted via another means of communications, if possible.
   c. Stations acknowledge and exercise caution to avoid revealing that a frequency change is being made.

TASK: 11F.3.6 OPERATE THE OPERATIONAL SYSTEM CONTROL CENTER

CONDITION(S): OSCC has been activated and is directing operations per the annex K of the Operations Order.

STANDARDS: EVAL: Y; N; NE

.1 ____ Maintains continuous awareness of the commander's plan of operation and resulting communications requirements.

.2 ____ Ensures all circuit activations are in consonance with the annex K.

.3 ____ Prepares and issues changes in network configuration, connectivity or routing in response to the commander's plan of operation and that all available circuits are used to the best advantage.

.4 ____ Maintains awareness of communication system status and of personnel and equipment performance.

.5 ____ Maintains information for systems planning and engineering (SPE).

.6 ____ Prepares and issues directives and instructions as required.

.7 ____ Monitors system performance and coordinates actions required for restoring the system.

.8 ____ Identifies and corrects system inadequacies and procedural deficiencies.

.9 ____ Assists with the preparation and distribution of general information to communications system users.

.10 ____ Directs the local TECHCONFAC.

.11 ____ Maintains files and logs and prepares reports per unit SOP and Annex K.

.12 ____ Maintains current status boards/displays as prescribed in unit SOP.

.13 ____ Prepares changes to timing control in response to timing sources available.

.14 ____ Coordinates/directs OTAT/OTAR operations.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11F.3.7 OPERATE THE TECHNICAL CONTROL FACILITY

CONDITION(S): TECHCON has been activated.

STANDARDS: EVAL: Y; N; NE

.1 ____ Operates the internal Main Distribution Frame (MDF).

.2 ____ Ensures that equipment is properly grounded.

.3 ____ Maintains connectivity to all external communication links.

.4 ____ Maintains communications with higher, adjacent, and subordinate technical control facilities.

.5 ____ Coordinates with senior, subordinate, and adjacent TECHCONFAC's in the exercise of technical supervision over common circuits.

.6 ____ Provides circuit path/communications connectivity as directed by OSCC.

.7 ____ Provides continuous circuit quality testing and circuit conditioning as required.

.8 ____ Maintains files and logs and prepares reports per unit SOP and annex K.

.9 ____ Maintains circuit and traffic diagrams per unit SOP and annex K.

.10 ____ Ensures compliance with restoration priorities per unit SOP and annex K, and OSCC direction.

.11 ____ Keeps OSCC informed of circuit availability and circuit status on all circuits under its control.

.12 ____ Informs OSCC of major communication equipment malfunctions and circuit outages within time limits given in the unit SOP and annex K.

.13 ____ Determines reason for outage (RFO).

.14 ____ Directs the use of appropriate troubleshooting procedures/teams to isolate faulty terminal equipment and signal paths.

.15 ____ Monitors frequencies prior to assigning or changing frequency for actual utilization.

.16 ____ Provides for circuit restoral, as directed by OSCC, by substituting equipment through patching or appropriate coordination with remote communication facilities.

.17 ____ Maintains capability to establish alternate signal paths when primary paths are disrupted.

.18 ____ Deactivates circuits as directed by OSCC.

.19 ____ Deactivates main distribution frame as directed by OSCC.

.20 ____ Identifies equipment requiring corrective maintenance.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

11F.4 LOGISITICS FUNCTIONS

TASK: 11F.4.1 MAINTAIN ORGANIC EQUIPMENT

CONDITION(S): Communication elements, to include contact maintenance teams, are deployed to provide limited intermediate level maintenance.

STANDARDS: EVAL: Y; N; NE

.1 ____ Ensures the location of the units field maintenance facilities and personnel will support the units employment.

.2 ____ Ensures the maintenance facilities provide the complete capability for the operation or the unit mission statement.

.3 ____ Ensures capability to repair organic equipment.

.4 ____ Establishes liaison for supply support and equipment evacuation, as appropriate.

.5 ____ Identifies to the supporting CSSE any nonorganic repair or calibration services required to support communication battalion equipment and other equipments deployed.

.6 ____ Calculates preexpended bin items and quantities based upon rates of consumption and expected resupply rates to support operational requirements.

.7 ____ Ensures adequate critical low density parts are available within deployment packups as well as intermediate facilities.

.8 ____ Identifies special test and support equipments required to support electronic systems when initial issues are inadequate.

.9 ____ Ensures organizational level maintenance personnel correct all equipment deficiencies within their capabilities per established procedures.

.10 ____ Ensures maintenance personnel are thoroughly familiar with unit SOP procedures to evacuate equipment to higher echelon maintenance facilities, when required.

.11 ____ Responds in a timely manner to requests for maintenance contact team support.

.12 ____ Performs authorized maintenance as far forward as possible to reduce delay time.

.13 ____ Replaces deadlined float equipment with maintenance float assets to ensure maximum operational support, when required.

.14 ____ Requests intermediate maintenance contact support, when required.

.15 ____ Coordinates equipment evacuation, when required.

.16 ____ Maintains equipment maintenance records and reports at the organizational and intermediate level per unit SOP.

EVALUATOR INSTRUCTIONS: Evaluate units compliance with authorized echelons of maintenance as established by units T/O and MMSOP.

Coordinate evaluations of maintenance facilities through the MMO.

KEY INDICATORS: None.

TASK: 11F.4.2 CONDUCT SUPPLY OPERATIONS

CONDITION(S): The battalion supply facility has been deployed and a CSSE is located within the local area of operations.

STANDARDS: EVAL: Y; N; NE

.1 ____ Ensures adequate initial supply support (all classes) to accomplish the mission is available to each unit element.

.2 ____ Ensures adequate food, water, fuel, and other supplies are available at each site.

.3 ____ Establishes resupply procedures/priorities for food, water, and fuel with command element.

.4 ____ Establishes procedures for obtaining additional spare parts, ORF exchange, and depot items of required equipment.

.5 ____ Ensures that supply personnel know the location of supply points for all classes of supply to include POL, ordnance, and repair parts.

.6 ____ Ensures adequate amounts of small arms ammunition (5.56, 9mm, .50 cal) are planned for site defense, and delivered to the deployed units.

.7 ____ Ensures sufficient amounts of other special ordnance items (hand grenades, smoke, illumination, etc.) are on hand.

.8 ____ Establishes procedures for obtaining ground defense devices, such as concertina wire and engineer stakes to meet tactical needs.

.9 ____ Monitors supply status, and maintains constant liaison with subordinate units.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11F.4.3 CONDUCT FIXED WING AIRCRAFT MOUNT OUT OPERATIONS

CONDITION(S): Contingency plans require the flyout of communication elements in support of continuing operations.

STANDARDS: EVAL: Y; N; NE

.1 ____ Conducts early and detailed air movement planning with the command element.

.2 ____ Submits a request for lift assets to command element.

.3 ____ Divides end items into loads with emphasis on the equipment necessary for initial operational requirements.

.4 ____ Task organizes personnel for movement based on the operational requirements and the number of transports available.

.5 ____ Prepares load plans and coordinates these plans with the command element.

.6 ____ Identifies hazardous cargo per applicable regulations to higher command/loadmasters.

.7 ____ Prepares equipment for aircraft movement.

.8 ____ Organizes personnel into teams for assistance with loading, unloading, re-embarking new transportation means, security, and operational installations.

.9 ____ Stages equipment and dunnage at the loading site.

.10 ____ Identifies material handling equipment requirements to command element for offloading at the destination air field.

.11 ____ Loads equipment under the direction of loadmaster.

.12 ____ Arranges for follow-on transportation to the operational site(s).

.13 ____ Plans special communications support for use during military airlift operations in coordination with command element.

.14 ____ Activates movement control circuits as required by local regulations.

.15 ____ Executes the movement.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11F.4.4 CONDUCT ROTARY WING MOVEMENT OPERATIONS

CONDITION(S): Elements of the unit have been ordered to displace to a remote area accessible by helicopter only.

STANDARDS: EVAL: Y; N; NE

.1 ____ Requests helicopter support from command element.

.2 ____ Provides detailed embarkation information to ensure sufficient numbers of helicopters for the movement.

.3 ____ Requests and utilizes an HST for the helo loading and movement.

.4 ____ Coordinates with aviation planners to ensures end item weights are made available to the helo load planners.

.5 ____ Task organizes personnel into manageable lifts for movement to the site based on tactical initial setup requirements and security.

.6 ____ Assists helicopter force in the preparation of the heliteam wave, and serial assignment tables.

.7 ____ Prepares serials and lifts of outsized equipment per OH 5-3A, Helicopter External Cargo Loading.

.8 ____ Prepares each item of equipment for movement.

.9 ____ Briefs HST on equipment specifications, use of spreader bars and equipment positions at the tactical site.

.10 ____ Briefs helo crews on equipment positioning at the tactical site using maps, aerial photos, sketches, or other aids.

.11 ____ Divides end items into manageable lifts for expeditious movement to the site with emphasis on the equipment necessary for initial operational capability.

.12 ____ Provides representation at all aviation mission briefings involving unit movement.

.13 ____ Executes the movement.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11F.4.5 PREPARE UNIT FOR EMBARKATION

CONDITION(S): Unit has received initial guidance to begin preparation for amphibious embarkation in support of continuing operations.

STANDARDS: EVAL: Y; N; NE

.1 ____ Prepares and submits equipment density lists to the command element.

.2 ____ Provides representation to all pre-deployment planning meetings.

.3 ____ Develops load plans in concert with planning guidance.

.4 ____ Prepares equipment for amphibious embarkation as specified in local regulations.

.5 ____ Stages equipment at port of embarkation.

.6 ____ Provides augmentation personnel organized into teams to assist with loading/unloading.

.7 ____ Identifies hazardous cargo/equipment per applicable regulations.

.8 ____ Loads hazardous cargo/equipment per applicable regulations.

.9 ____ Prioritizes equipment load plans to ensure early initial operational capability upon arrival at destination.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11F.4.6 OPERATE BATTALION AID STATION

CONDITION(S): The communication battalion aid station has been established and a field hospital is located within the area of operations.

STANDARDS: EVAL: Y; N; NE

.1 ____ Appropriate numbers of qualified medical personnel are available to staff the aid station(s) for extended operations.

.2 ____ Ensures medical supplies and equipment are available at the aid station(s) to provide health care and to process casualties.

.3 ____ Requests medical information from command element to include location of additional military and civilian facilities and any special problems/diseases expected in the operational area.

.4 ____ Disseminates location of aid station(s) to subordinate elements, and to command element.

.5 ____ Disseminates casualty evacuation procedures to subordinate elements.

.6 ____ Ensures the medical element assigned to each tactical site is organized, equipped, supplied, and ready to deploy with the supported element.

.7 ____ Provides routine medical care for deployed force elements.

.8 ____ Provides preventive medicine measures for the control of disease(s).

.9 ____ Conducts triage.

.10 ____ Provides equal emergency treatment of casualties, to include prisoners of war, based on the victims medical condition, not his affiliation or status as a PW.

.11 ____ Prepares patients, establishes priorities, and arranges for rearward evacuation, if required.

.12 ____ Adheres to casualty reporting procedures established by higher authority/medical battalion.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11F.4.7 CONDUCT ARMORY OPERATIONS

CONDITION(S): An administrative command post has been established and occupied.

STANDARDS: EVAL: Y; N; NE

.1 ____ Stores stock weapons and casualty weapons.

.2 ____ Issues weapons to new Marines joining battle.

.3 ____ Conducts second echelon maintenance on weapons.

.4 ____ Establishes and maintains armory security. (KI)

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

ARMORY SECURITY

Physical security should include the use of: concertina wire, armed guard and access control measures.

TASK: 11F.4.8 OPERATE FIELD MESS

CONDITION(S): The communication battalion has occupied the tactical site and a unit field mess is being established.

STANDARDS: EVAL: Y; N; NE

.1 ____ Establishes an operational field mess within the time prescribed in the Operations Order.

.2 ____ Uses and maintains organic mess equipment per appropriate food service publications.

.3 ____ Maintains sanitation in the field mess as prescribed in the field food service procedures.

.4 ____ Receives and stores subsistence supplies per field food service procedures.

.5 ____ Prepares and serves food per MCO P10110.14.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

11F.5 UNIT ADMINISTRATION - PERSONNEL FUNCTIONS

TASK: 11F.5.1 CONDUCT UNIT ADMINISTRATION

CONDITION(S): Communication battalion/squadron's administrative staff has deployed with the CP to provide administrative support due to extended field operations are anticipated.

STANDARDS: EVAL: Y; N; NE

.1 ____ Provides input to the command element Operations Order on personnel and administrative matters.

.2 ____ Coordinates the battalion/squadron reports control system with the unit staff, and ensures compliance with command elements requirements.

.3 ____ Receives and processes official incoming correspondence and message traffic for unit internal distribution.

.4 ____ Processes official outgoing correspondence.

.5 ____ Administers unit legal services.

.6 ____ Processes enemy prisoners of war per the Operations Order.

.7 ____ Coordinates religious ministries/services for subordinate elements to include visits by chaplains.

.8 ____ Receives and submits casualty reports per the Operations Order.

.8 ____ Receives and submits casualty reports per the Operations Order.

.9 ____ Processes personal mail as prescribed in postal regulations.

.10 ____ Coordinates regular mail delivery to tactical sites.

.11 ____ Coordinates morale and welfare activities, to include pay.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11F.5.2 CONDUCT PERSONNEL OPERATIONS

CONDITION(S): Communication battalion/squadron's administrative staff has deployed with the CP to provide administrative support due to extended field operations are anticipated.

STANDARDS: EVAL: Y; N; NE

.1 ____ Submits personnel reports, such as Unit Diary, as directed in the Operations Order.

.2 ____ Maintains SRB/OQR for unit personnel.

.3 ____ Provides personnel replacements and augmentation to subordinate elements per operational priorities.

.4 ____ Requests personnel assets beyond the battalion capability from the MAGTF command element.

.5 ____ Processes incoming/outgoing personnel with minimum delay.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

11F.6 CONTINUING ACTIONS BY MARINES

TASK: 11F.6.1 ESTABLISH AND MAINTAIN PASSIVE DEFENSE MEASURES

CONDITION(S): The site has been established and equipment is emplaced, and checked out.

STANDARDS: EVAL: Y; N; NE

.1 ____ Demonstrates attention to detail when camouflaging positions and equipment.

.2 ____ Camouflages the site as expeditiously and as effectively as possible with the assets available.

.3 ____ Minimizes highly reflective surfaces (mirrors/glass) with tape, mud or other obscuring materials.

.4 ____ Enforces light discipline of personnel as well as equipment.

.5 ____ Enforces noise discipline of personnel as well as equipment.

.6 ____ Enforces movement discipline within the site.

.7 ____ Attempts to block heat sources (generators, stoves, etc.) from aerial/ground thermal observation devices.

.8 ____ Removes signs of vehicle movement within the site.

.9 ____ Establishes deception sites as possible (radios as decoys, fake taped conversations, dummy antenna sites, dummy camouflage netting, etc.) as directed by command element.

.10 ____ Reports enemy air attacks to higher command by fastest means possible.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11F.6.2 ESTABLISH AND MAINTAIN TACTICAL SITE SECURITY

CONDITION(S): The unit has arrived at the designated site and equipment has been emplaced. The enemy ground situation is such that ground attack by small lightly armed forces may be expected.

STANDARDS: EVAL: Y; N; NE

.1 ____ Prepares a ground defense plan with due regard for the MAGTF rules of engagement, and the duty to protect civilians from indiscriminate placement of boobytraps.

.2 ____ Emplaces ground anti-intrusion devices (concertina, boobytraps, and engineering stakes) per the ground defense plan.

.3 ____ Requests support for any anti-intrusion device emplacement that exceeds unit organic capability.

.4 ____ Emplaces M2 (.50 cal) and SAW with overlapping fields of fire per the ground defense plan.

.5 ____ Establishes control measures and communications to coordinate and control site defenses.

.6 ____ Coordinates with command element and adjacent units to integrate security with friendly forces; (i.e., local security patrols, artillery support, etc.).

.7 ____ Designates a reaction force to repel threats to perimeter security.

.8 ____ Establishes reliable communications among ground defense elements and reaction forces/outside units who are providing support as directed by higher authority.

.9 ____ Establishes communications with command element for the passage of intelligence, passwords, air defense warning, ground threat coordination.

.10 ____ Develops plans for equipment destruction in the event of emergency site abandonment.

.11 ____ Prepares a plan for internal security. (KI)

.12 ____ Briefs ground defense plan to all supervisory personnel.

.13 ____ Ensures installation of fighting holes.

.14 ____ Establishes/coordinates security for antenna farms, radio remote sites, and cable runs.

.15 ____ Continuously evaluates and improves perimeter security positions/camouflage.

EVALUATOR INSTRUCTIONS: The unit ground security can be tested by using a small aggressor force to probe, snipe or otherwise harass the unit as it establishes the site and after all ground security measures have been taken. The scope and intensity of this action should be generally commensurate with intelligence estimates and within the units capability to defend itself.

KEY INDICATORS:

INTERNAL SECURITY

The internal security plan should include applicable elements of the following:

1. Tactical site layout.
2. Location and types of bunkers.
3. Location of reaction force.
4. General location of fighting holes.
5. Automatic weapon emplacements and overlapping fields of fire.
6. Barbed wire.

11F.7 NBC OPERATIONS

TASK: 11F.7.1 PREPARE UNIT FOR NBC OPERATIONS

CONDITION(S): Threat forces have been reported as capable of employing NBC munitions in the area where the communication battalion is located. Due to the threat, passive and active defense measures must be used for survival of the unit.

STANDARDS: EVAL: Y; N; NE

.1 ____ Possesses an SOP which outlines procedures for NBC operations as specified in appropriate field manuals.

.2 ____ Ensures the training of sufficient NBC personnel to support NBC operations as stated in the SOP.

.3 ____ Ensures unit NBC personnel are school trained in assigned functions.

.4 ____ Ensures staff and officers are aware of individual and section responsibilities in the event of a NBC attack.

.5 ____ Ensures individual NBC defense equipment authorized by the unit table of equipment (T/E) is serviceable and issued to each individual.

.6 ____ Communications battalion/squadron ensures unit NBC defense equipment authorized by unit T/E is operationally ready and distributed to designated and trained/knowledgeable operators.

.7 ____ Communications battalion/squadron ensures decontamination equipment and bulk decontaminates authorized by T/E's are available and ready for transport to a decontamination area.

.8 ____ Communications battalion/squadron ensures decontamination equipment units are filled (methylsalicilate mixed with water used for training).

.9 ____ Ensures personnel demonstrate proficiency in standard first aid procedures to provide self/buddy aid for nuclear blast, and thermal effects.

.10 ____ Ensures personnel thoroughly understand mission oriented protective posture (MOPP) for the control of personnel exposure to NBC hazards.

.11 ____ Complies with MOPP level established by MAGTF command element.

.12 ____ Ensures Marines can properly identify NATO or threat NBC contamination markers.

.13 ____ Emplaces equipment to maximize utilization of terrain features for cover, concealment, and topographic shielding from NBC attacks.

EVALUATOR INSTRUCTIONS: Provide the unit information to expect an imminent nuclear attack by the enemy, and integrate NBC scenarios with normal operational assignments. Evaluator(s) should be thoroughly trained in this area as part of evaluators' school. An aerial spraying of water can also be used in conducting a simulation.

KEY INDICATORS: None.

TASK: 11F.7.2 PREPARE UNIT FOR NUCLEAR ATTACK

CONDITION(S): Unit is informed that nuclear attack is imminent. SOP's and/or Operation Orders are on hand to provide checklists, sequence of actions, and guidance.

STANDARDS: EVAL: Y; N; NE

.1 ____ Identifies backup/alternate command, control, and communications procedures.

.2 ____ Alerts subordinate/displaced elements.

.3 ____ Continues unit mission while implementing actions to minimize casualties and damage.

.4 ____ Protects vehicles and equipment by emplacing behind masking terrain.

.5 ____ Communications battalion/squadron activates the monitor survey team.

.6 ____ Communications battalion/squadron initiates periodic monitoring using available survey instruments.

.7 ____ Identifies/prepares shelters for defense against heat, blast, and radiation.

.8 ____ Minimizes personnel exposure possibilities by rolling down sleeves, buttoning collars, and wearing any additional clothing equal to a two layered uniform.

.9 ____ Secures/protects loose items, flammable/explosive items, food, and water from heat, blast, and radiation.

.10 ____ Ensures preventive maintenance measures are initiated for equipment that is highly susceptible to electromagnetic pulse (EMP) and essential communications equipment, and nonessential communications equipment is shut down. (KI)

EVALUATOR INSTRUCTIONS: Commander is informed that nuclear weapons have been used.

KEY INDICATORS:

PROTECTIVE MEASURES

The following protective measures should be followed (time permitting):

1. Power and telephone lines brought in underground and properly protected.

2. Shield audio wiring and components with low level signals, single point grounding and the avoidance of loops.

3. Coaxial cables are buried underground, as are the main and auxiliary repeater or switching centers.

4. Metal flashing surrounds each metallic line. If not possible, protectors or filters are used to minimize the damage potential of the EMP surge.

5. Emergency power source should be available.

TASK: 11F.7.3 RESPOND TO THE INITIAL EFFECTS OF A NUCLEAR ATTACK

CONDITION(S): Nuclear attack is simulated by the detonation of an artillery or nuclear blast simulator, or by other appropriate means.

STANDARDS: EVAL: Y; N; NE

.1 ____ Personnel take immediate action, upon recognizing the attack, to shield themselves from blast, heat of detonations by taking cover in fighting holes, bunkers, culverts, caves, tunnels, etc.

.2 ____ Evacuates personnel to non-affected location as directed by command element.

.3 ____ Maintains or re-establishes chain of command and communications. Resumes mission if possible.

.4 ____ Administers casualties first aid and evacuates to a medical treatment station as the mission permits.

.5 ____ Submits damage assessment by secure means to higher command element per SOP.

.6 ____ Continues monitoring using available survey instruments.

EVALUATOR INSTRUCTIONS: Evaluator will assess constructive casualties due to blast, heat, dazzle, radiation, and electromagnetic pulse (EMP). Communications systems that are turned on during the simulated nuclear detonations, will be assessed as EMP casualties.

KEY INDICATORS: None.

TASK: 11F.7.4 RESPOND TO THE RESIDUAL EFFECTS OF A NUCLEAR ATTACK

CONDITION(S): A surface or subsurface nuclear detonation has occurred. The unit location is within the predicted fallout zone. An M5A2 radiological fallout-predictor, or substitute, is available. The unit gets effective downwind messages at least once every 3 hours. NBC-2 report is furnished to the unit about 15 minutes after the detonation, or prepared by the unit; NBC-3 report is furnished about 45 minutes after detonation; NBC-5 report and/or contamination overlay is provided about 4 hours after the detonation.

STANDARDS: EVAL: Y; N; NE

.1 ____ Performs mission concurrently with all other actions.

.2 ____ Communications battalion/squadron maintains monitoring using available survey instruments.

.3 ____ Protects equipment, munitions, POL, food, and water from fallout.

.4 ____ Takes individual protective measures to minimize fallout effects as mission permits.

.5 ____ Communications battalion/squadron forwards NBC-4 reports, as required, to the command element.

.6 ____ Records unit total dose information and reports this information to higher command elements, using available secure means.

.7 ____ Minimizes exposure while commanding officer determines if relocation to a clean area is necessary or possible. Calculates optimum time of exit.

.8 ____ Handles casualties and provides first aid treatment in a nuclear environment.

.9 ____ Assesses impact of casualties on unit mission.

EVALUATOR INSTRUCTIONS: Commander is advised of estimated time of fallout arrival.

KEY INDICATORS: None.

TASK: 11F.7.5 PERFORM RADIOLOGICAL DECONTAMINATION

CONDITION(S): Fallout has ceased, and personnel and equipment are contaminated. The hazard to personnel does not allow time for the radiation to decay to a minimum level. Time and tactical situation permit decontamination.

STANDARDS: EVAL: Y; N; NE

.1 ____ Establishes decontamination priorities.

.2 ____ Communications battalion/squadron establishes decontamination point.

.3 ____ Ensures decontamination personnel wear appropriate protective clothing, and equipment.

.4 ____ Decontaminates equipment, personnel, and individual weapons using appropriate decontamination equipment.

.5 ____ Decontaminates unit equipment and vehicles using appropriate expedient devices.

.6 ____ Unit ensures adequate NATO standard NBC markers are on hand.

.7 ____ Marks contaminated areas with NATO standard NBC markers.

.8 ____ Determines adequacy of decontamination using available personnel and equipment monitoring instruments.

.9 ____ Discards contaminated materials according to tactical SOP, marks as contaminated, and provides location to the command element.

.10 ____ Decontaminates decontamination personnel as necessary.

.11 ____ Remains within operational exposure guidance (OEG).

.12 ____ Records total dose information for the unit and for each individual.

.13 ____ Reports unit total dose to command element.

.14 ____ Communications battalion/squadron zeros individual radiac measurement instruments following each period of exposure.

EVALUATOR INSTRUCTIONS: FM 3-5 provides guidelines for the decontamination procedures.

KEY INDICATORS: None.

TASK: 11F.7.6 CROSS A RADIOLOGICAL CONTAMINATED AREA

CONDITION(S): Tactical situation forces the communication battalion to cross a radiological contaminated area while moving to a new site. Unit receives a NBC-5 report or contamination overlay from the command element.

STANDARDS: EVAL: Y; N; NE

.1 ____ Posts NBC-5 report and/or contamination overlay to situation map and determines route.

.2 ____ Obtains route clearance and approval, if necessary.

.3 ____ Provides turn back dose and dose rate to advance party and/or reconnaissance team.

.4 ____ Ensures vehicles receive additional shielding and personnel are provided all available protection from dust.

.5 ____ Dispatches advance party and/or reconnaissance team to reconnoiter new areas.

.6 ____ Crosses contaminated area while employing contamination avoidance techniques.

.7 ____ Operates within operational exposure guidance.

.8 ____ Communications battalion/squadron determines the degree of personnel and equipment contamination after clearing the contaminated area, using monitoring instruments.

.9 ____ Establishes and follows decontamination priorities.

.10 ____ Communications battalion/squadron records unit total dose information, using available total dose instruments, and reports to command element.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.

TASK: 11F.7.7 PREPARE UNIT FOR A FRIENDLY NUCLEAR STRIKE

CONDITION(S): Unit receives a friendly nuclear STRIKEWARN per FM 3-3, appendix G. The communication battalion is located within minimum safe distance (MSD) zones 2 to 3.

STANDARDS: EVAL: Y; N; NE

.1 ____ Applies the STRIKEWARN accurately and completely to the situation map within 5 minutes after message receipt.

.2 ____ Makes pertinent information regarding the planned detonation (time of burst, ground zero, fallout coverage, MSD, etc.) available to the commanding officer.

.3 ____ Advises commanding officer on the vulnerability of the unit to the burst and residual contamination.

.4 ____ Advises commanding officer of the measures needed to prevent casualties, damage, and extended interference with the mission.

.5 ____ Implements protective measures, as directed by command element, consistent with the mission.

.6 ____ Increases MOPP level consistent with mission, temperature, work rate, and guidance.

.7 ____ Places vehicles behind masking terrain.

.8 ____ Turns off duplicate electronic devices; disassembles erected antennas; ties down antennas. Bare minimum radio equipment remains erected.

.9 ____ Places all loose items (small weapons, tools, etc.) and highly flammable/explosive items (POL, propellants, etc.) in vehicles or shelters.

.10 ____ Acknowledges the warning before the expected time of burst. All subordinate units have been warned and protective measures implemented.

.11 ____ Ensures personnel take cover in foxholes, bunkers, armored vehicles, existing shelter (basements, culverts, caves, tunnels, etc.), or lie prone on open ground.

EVALUATOR INSTRUCTIONS: Evaluator simulates nuclear detonation with an artillery or nuclear blast simulator, or informs the unit that nuclear blast has occurred. Evaluator assesses casualties and damage to unprotected personnel and equipment.

KEY INDICATORS:

WARNING

Unit should warn subordinate/detached elements of and impending nuclear detonation by using one of the following methods:

1. Using a code word or brevity code from the CEOI to indicate the message is a nuclear strike warning.
2. A brief, prearranged message that directs the receiver to implement specific protective measures.
3. Encoded message with expected time of burst, sent by most expedient means of communication.

TASK: 11F.7.8 PREPARE UNIT FOR A CHEMICAL AGENT ATTACK

CONDITION(S): Unit is informed that chemical weapons have been used in the theater of operations and that a chemical attack is imminent.

STANDARDS: EVAL: Y; N; NE

.1 ____ Implements the chemical defense SOP which addresses chemical defense/decontamination procedures.

.2 ____ Increases MOPP level consistent with mission, temperature, and work rate.

.3 ____ Ensures individual protective clothing is of proper size and serviceability.

.4 ____ Ensures unit has on hand sufficient quantities of atropine injectors.

.5 ____ Ensures unit has issued atropine injectors to all personnel.

.6 ____ Identifies unit tasks requiring a high degree of manual dexterity, strength, and difficulty while in MOPP 4.

.7 ____ Plans personnel rotation, or assigns additional personnel while in MOPP

.8 ____ Demonstrates the capabilities for donning the protective mask and chemical protective ensemble.

.9 ____ Ensures use of the buddy system to facilitate individual monitoring/treatment for chemical agent poisoning and emergency decontamination.

.10 ____ Continues mission while implementing all actions to minimize casualties and damage.

.11 ____ Covers essential equipment, munitions, POL, food, and water supplies that cannot be placed in a shelter with readily decontaminated traps, ponchos, etc.

.12 ____ Communications battalion/squadron ensures that the decontamination equipment is filled and there is an available water source with a supporting road network.

.13 ____ Communications battalion/squadron reports potential decontamination sites to the command element.

.14 ____ Communications battalion/squadron erects and monitors available chemical agent alarms.

.15 ____ Communications battalion/squadron uses and stores protective NBC equipment and properly supplies and maintains equipment in a high state of serviceability.

.16 ____ Demonstrates a knowledge of chemical agent symptoms.

EVALUATOR INSTRUCTIONS: Unit is informed that chemical weapons have been used, and that attack is imminent.

KEY INDICATORS: None.

TASK: 11F.7.9 RESPOND TO A CHEMICAL AGENT ATTACK

CONDITION(S): The unit is subjected to a chemical agent attack. Site should support the type of activities being conducted and permit the safe use of simulators and devices.

STANDARDS: EVAL: Y; N; NE

.1 ____ Responds to a chemical alarm by taking immediate protective measures followed by treatment/decontamination of casualties. (KI)

.2 ____ Classifies wounded into: walking wounded and litter decontamination.

.3 ____ Personnel mask automatically upon notification of any enemy artillery, rocket, or air attack/overflight.

.4 ____ Exposed personnel self inject atropine solution.

.5 ____ Personnel mask automatically upon perceiving a suspicious odor, airborne droplets/mist, or smoke from unknown source.

.6 ____ Marines unmask only when authorized. (KI)

.7 ____ Performs mission for at least 4 hours while in MOPP 4.

.8 ____ Communications battalion/squadron identifies type of chemical agent using available detector kit. persistent agent:

.9 ____ Locates and marks with NATO standard markers persistent agent contamination areas.

.10 ____ Communications battalion/squadron reports location and type of contamination to the command element, and plots the location per FM 3-3.

.11 ____ Communications battalion/squadron determines whether immediate relocation to a clean area is necessary or possible and advises the command element.

.12 ____ Determines decontamination priorities and requests decontamination support if required.

.13 ____ Wraps, marks as contaminated, and evacuates WIA's as mission permits. Warns medical treatment facility.

.14 ____ Wraps, marks as contaminated, fills out forms, collects valuables and evacuates KIA's as mission permits. Warns graves registration collection point.

.15 ____ Follows unmasking procedures.

.16 ____ Evacuates WIA's to the medical treatment facility as mission permits.

.17 ____ Evacuates KIA's to the graves registration collection point as mission permits.

.18 ____ Communications battalion/squadron services detector units and returns them to operation.

.19 ____ Communications battalion/squadron replaces expended chemical defense items, as required.

.20 ____ Communications battalion/squadron adjusts MOPP level, as required.

.21 ____ Plans and provides first aid treatment to casualties in a chemical environment.

EVALUATOR INSTRUCTIONS: Selected personnel are presented decontamination training kits and first aid treatment training devices to "treat designated casualties". Every attempt must be made to provide a realistic situation through devices, scenarios, or other aids developed through innovation. The key to a thorough evaluation is a realistic, believable, well supported situation imposed by the trainer/evaluator. Ninety percent of the personnel must successfully accomplish the tasks for the unit to receive a "yes" evaluation.

KEY INDICATORS:

CHEMICAL CASUALTIES

Chemical casualties are described as:

1. Personnel without mask and hood within arms reach, without decontamination kits, or not wearing chemical protective clothing.

2. Personnel not taking immediate corrective actions upon perceiving the attack, hearing a chemical agent alarm, being ordered to mask, or using incorrect masking procedures (not masking within 9 seconds), or making incorrect use of decontamination kits/first aid treatment items.

3. Marines who unmask or otherwise assume a lesser degree of MOPP without being authorized to do so.

UNMASKING PROCEDURES

When a detector kit is available, the following unmasking procedures will be adhered to:

1. After determining absence of agents, two or three Marines unmask for 5 minutes.

2. Marines remask and are examined in a shady area for symptoms for 10 minutes.

3. If no symptoms appear, remainder of unit may unmask in groups.

When no detector kit is available, the following unmasking procedures will be adhered to:

1. Two or three Marines take a deep breath, hold it.

2. Then they clear their masks, re-establish the seal, and wait 10 minutes.

3. If no symptoms appear, the same Marines break the seal of their masks, take two or three deep breaths, clear and reseal their masks.

4. If after 10 minutes no symptoms have appeared, the same Marines unmask for 5 minutes and then remask.

5. If after 10 more minutes no symptoms have appeared, the rest of the unit may unmask.

TASK: 11F.7.10 PERFORM DECONTAMINATION

CONDITION(S): Personnel and equipment have been contaminated by a chemical agent. Time is not available for complete decontamination. The hazard is such that hasty decontamination is required. All personnel are maintaining a maximum MOPP.

STANDARDS: EVAL: Y; N; NE

.1 ____ Decontaminates individual weapons and unit equipment using appropriate decontamination kits.

.2 ____ Determines extent of contamination and establishes decontamination priorities.

.3 ____ Removes contaminated protective covers and decontaminates, or discards.

.4 ____ Uses appropriate decontamination procedures for items being decontaminated. (KI)

.5 ____ Decontaminates equipment and vehicles using appropriate expedient devices.

.6 ____ Determines adequacy of decontamination.

.7 ____ Discards contaminated materials according to tactical SOP, marks as contaminated, and provides locations to MAGTF command element.

.8 ____ Reduces MOPP level, if required.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS:

DECONTAMINATION PROCEDURES

If support is not available for conducting hasty decontamination, initial decontamination of unit equipment, vehicles and weapons may be accomplished by:

1. Removing all gross liquid contamination with sticks or other improvised devices, which are buried after use.
2. Utilizing decontamination equipment filled with DS2 to spray areas frequently used or touched (methylsalicilate is used to simulate DS2 in a training environment).
3. Optical instruments are blotted with rags and then wiped with lens cleaning solution or organic solvent.

Adequacy of decontamination is determined using the chemical agent detector kit. If contamination is still present, procedures can be repeated, decontamination support can be requested, or the risk of using the equipment can be accepted.

TASK: 11F.7.11 EXCHANGE PROTECTIVE CLOTHING

CONDITION(S): The protective clothing is contaminated and a suitable uncontaminated area is available.

STANDARDS: EVAL: Y; N; NE

.1 ____ Removes contaminated clothing without transfer of contamination as specified in appropriate procedure in field manual.

.2 ____ Changes to new protective clothing.

EVALUATOR INSTRUCTIONS: None.

KEY INDICATORS: None.
